

PSYCHOLOGICAL ABSTRACTS

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GENERAL (incl. Statistics)

5081. Alverdes, F. Acht Jahre tierpsychologische Forschung im Marburger Zoologischen Institut. (Eight years of research in animal psychology in the Marburg Zoological Institute.) *S. B. Ges. ges. Naturw. Marburg*, 1937, 72. Pp. 68.—P. L. Krieger (Leipzig).

5082. Arnold, W. Leistung und Charakter—eine methodologische Studie. (Performance and character—a methodological study.) *Z. angew. Psychol.*, 1937, 53, 48–79.—This is a critical consideration of the methodological procedures employed in various types of psychological investigation. Among the fields of psychological research methodologically considered are: applied psychology, characterology (typology, etc.), and the work curve.—G. F. J. Lehner (Vermont).

5083. Blachowski, S. Kazimierz Twardowski. *Kwart. psychol.*, 1938, 10, 1–8.—An obituary.—T. M. Abel (Trade Extension Classes, New York City).

5084. Bleuler, E. Mnemistic biology and psychology. *J. nerv. ment. Dis.*, 1938, 87, 169–201.—C. R. Atwell (Boston Psychopathic Hospital).

5085. Bowers, R. V. Conceptual integration and social research. *Amer. sociol. Rev.*, 1938, 3, 307–319.—The author reviews the general nature of the process of conceptual integration out of which systematic bodies of scientific theory grow. He urges the need for social scientists to give more attention now to this process and less to mere fact-finding. He predicts that "social science is facing a methodological reorientation as important as the empirical research movement of the past two decades. . . . As scientific 'shock troops' it (empiricism) may have performed its duty efficiently, but the time is overdue to utilize logically controlled thought as an ally and help resolve the conceptual confusion that is evident on every hand." In the search for tools of conceptual integration, "the qualitative nature of our generalizations should direct us at present to symbolic logics and qualitative mathematics."—I. L. Child (Yale).

5086. Bubb, F. W. On the combination of critical ratios. *J. Parapsychol.*, 1938, 2, 132–137.—A formula for combining critical ratios when probability values are constant is constructed. The exact formula is compared to an empirical one suggested by Rhine and a close approximation noted.—C. E. Stuart (Duke).

5087. Dufrenoy, J. Publishing behavior of biologists. *Quart. Rev. Biol.*, 1938, 13, 207–210.—The frequency of authors contributing one, two,

etc., papers to the index of the *Review of Applied Mycology* (1935) was determined for 1085 authors. Those who contributed two and those with more than four papers constitute a group which does not belong to the same series with authors publishing one, three or four papers. The distribution of frequencies of authors (or joint authors) communicating one, two, three, four papers to the *Comptes Rendus de la Société de Biologie* 1935 approximate the distribution $y = (4.25)^x$ closely, as shown by the chi-square test. A similar formula expresses multiple births of human beings. The publications on viruses from Cook's *Partial Bibliography* can be plotted as a straight line, using the equation $\log y = -k \log x$.—O. W. Richards (Spencer Lens Company).

5088. Essen, J. v. Alfred Adler en zijn individuaalpsychologie, 7-2-1870-28-5-1937. (Alfred Adler and his individual psychology, February 7, 1870–May 28, 1937.) *Nederl. Tijdschr. Psychol.*, 1938, 6, 16–33.—The difficulty of judging Adler arises from the fact that he was at the same time an analytic psychologist with a theory and a medical pedagogue with a practice. His particular type of individual psychology is better called individual psychotherapy. Even after he had broken away from Freud in 1911, Adler's work continued to show a protest against Freud's attempt to force the dynamic neuroses into a system of general, impersonal laws, and against his overemphasis on sex. For this reason Adler chose the apparent misnomer of "individual psychology" as a name for his own system and ignored sex as a factor in the causation of neuroses by the expedient of substituting the term "striving for power" without changing the concept materially. His great success was due primarily to the humaneness of his method rather than to its superior claim to truth. A principal difference between him and Freud was that Adler reversed the latter's process by attempting to normalize abnormal behavior. A bibliography of 113 titles is included.—H. Beaumont (Kentucky).

5089. Farnsworth, P. R. Aesthetic behavior and astrology. *Character & Pers.*, 1938, 6, 335–340.—Astrologers do not agree as to which zodiacal signs are associated with the birth of individuals with aesthetic capacities. However, for those for which there is the highest agreement there is no correlation with the birth dates of 1498 artists and musicians who are listed in three leading directories.—M. O. Wilson (Oklahoma).

5090. Greenwood, J. A. Analysis of a large chance control series of ESP data. *J. Parapsychol.*, 1938, 2, 138–146.—A random series of 500,000 call-card matchings was constructed to approximate a

free-calling ESP series, but with possible extra-sensory determinations of the results ruled out. Matching, binomial, normal, and Type I hypotheses of distribution are applied to the hit-frequency-per-run distribution. The distribution is of a Type I form. The best theoretical approximation was found to be that of the binomial hypothesis.—*C. E. Stuart* (Duke).

5091. **Hart, J. K.** *Mind in transition; patterns, conflicts, and changes in the evolution of the mind.* New York: Covici, Friede, 1938. Pp. 412. \$3.50.—(Not seen).

5092. **Henry, F.** *A direct reading cardio-chronoscope.* *J. exp. Psychol.*, 1938, 22, 598-601.—Detailed description with wiring diagram of an apparatus which indicates pulse rate directly and continuously. The instrument facilitates investigations of cardiac changes in emotional situations, and during exercise and recovery.—*H. W. Karn* (Pittsburgh).

5093. **Hoff, H. E.** *Recent progress in physiology.* *New Engl. J. Med.*, 1938, 218, 964-973.—*W. J. Brogden* (Johns Hopkins).

5094. **Hofstätter, P. R.** *Tatsachen und Probleme einer Psychologie des Lebenslaufs.* (Facts and problems of a psychology of the life span.) *Z. angew. Psychol.*, 1937, 53, 273-333.—The author presents vital statistics obtained from various groups concerning such factors in a life span as period of greatest productivity, of greatest tendency toward crime, suicide, marriage, divorce, sickness, etc., death rate of various classes and professions, and changes in muscular, sensory and other functions. Extensive bibliography.—*G. F. J. Lehner* (Vermont).

5095. **Jezhikov, J. J.** *Zur Rekapitulationslehre.* (Concerning the recapitulation theory.) *Biol. gen.*, 1937, 13, 67-100.—*P. L. Krieger* (Leipzig).

5096. **Kelley, T. L.** *The Kelley statistical tables.* New York: Macmillan, 1938. Pp. v + 136. \$4.50.—Following a brief discussion of the construction and accuracy of tables and of the uses of the tables included, 7 tables are presented. They include: (1) 8-place normal distribution, simple correlation, and probability functions, (2) 4-place χ^2 functions, (3) 10-place cubic interpolation coefficients, (4) 10-place quintic interpolation coefficients, (5) 11-place septic interpolation coefficients, (6) 8-place square roots, and (7) constants frequently needed.—*J. McV. Hunt* (Brown).

5097. **Kloos, —.** *Das Realitätsbewusstsein in der Wahrnehmung und Trugwahrnehmung.* (Reality—its real and illusory perception.) Leipzig: Thieme, 1938. Pp. 66. RM. 4.50.—Based primarily upon empirical data, the author considers the nature of reality, the formation of "reality awareness," the objective and subjective basis for its perception, the difference between perception and imagination, and the nature and role of hallucinations.—*G. F. J. Lehner* (Vermont).

5098. **Lorge, I., & Morrison, N.** *The reliability of principal components.* *Science*, 1938, 87, 491-492.—107 subjects were given forms A and B of Thur-

stone's scales for the measurement of social attitudes and five principal components were extracted by the Hotelling method. The correlations derived indicate that all components beyond the first are too unreliable for individual prediction. "In other words, the information of the five scales might have been obtained best by one good test." The authors fear that one may be led astray by too much dependence upon factor methods because of the low reliability of traits beyond the first, and thus these traits will be inadequately identified and frequently misnamed.—*F. A. Mote, Jr.* (Brown).

5099. **Maller, J. B.** *Impressions of the eleventh international congress of psychology.* *J. consult. Psychol.*, 1938, 2, 65-70.—The 125 papers presented at several sections of this congress, held at Paris in July 1937, are classified according as they dealt with the following topics: (1) genetic psychology and observation of infant behavior, (2) intelligence and unitary traits, (3) personality and emotional disturbances, (4) learning, laboratory methods and observations of animal behavior. Criticisms of the congress indicate that the program lacked unity and social purpose, the papers were not critically selected, the use of different languages was confusing, and many scheduled papers were not presented. Furthermore, "the I.C.P. failed to take cognizance of the virtual collapse of scientific psychology in Germany, though such an international gathering would have been the ideal occasion for the expression of a vigorous protest."—*P. S. de Q. Cabot* (Simmons).

5100. **Moore, M. Morton Prince, M.D. (1854-1929).** *J. nerv. ment. Dis.*, 1938, 87, 701-710.—A brief biography.—*C. R. Atwell* (Boston Psychopathic Hospital).

5101. **Munn, N. L.** *A laboratory manual of general experimental psychology.* New York: Prentice-Hall, 1938. Pp. viii + 286. \$1.90.—This is a completely revised and rearranged edition of the earlier manual. It contains 65 two-hour experiments. Although many of the experiments require elaborate apparatus, over half of them do not. There are class experiments as well as individual ones; animal as well as human; and introspective as well as behavioral. The manual may be used with a text, but it also lists references to more specialized sources. In a separate section there are notes on the sources and prices of materials for the experiments. The pages are perforated and separable, so that the direction sheets may be collected in a loose-leaf notebook, while the question sheets may be handed in.—*H. Schlosberg* (Brown).

5102. **Nadoleczny, M.** *Death of Carl Stumpf.* *J. Speech Disorders*, 1938, 3, 76-80.—A biographical sketch of Carl Stumpf, including an account of his death, a brief résumé of his principal contributions, and an evaluation of the man. The original paper, written in German, appears in the same issue.—*C. V. Hudgins* (Oberlin).

5103. **Ness, A.** *Erkenntnis und wissenschaftliches Verhalten.* (Cognition and scientific behavior.) *Skr. norske Vidensk. Akad.*, 1936, No. 1.

Pp. 249.—The objectives of this treatise are to bring objective psychological problems nearer to a solution and to "objectivate" the problems common to epistemology, psychology, and classical logic. "In spite of difficulties which hinder any objective psychological description, we believe that we may draw the conclusion from our investigation that epistemology, subjective cognition psychology, and the doctrine of meaning may be fully and practically replaced by an objective psychological description of scientific behavior." Extensive footnote bibliography.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5104. Oelrich, W. *Über die Wirksamkeit künstlerischer Gestaltungsprinzipie auf den psychologischen Prozess.* (Concerning the efficacy of artistic principles of composition on the psychological process.) *Beih. Z. angew. Psychol.*, 1938, **79**, 91-118.—The application and use of artistic principles of workmanship, such as the analytic and synthetic approach, the selection of subject matter and the role of conscious and unconscious selection, the organization and expression of content, etc., are considered from the point of view of applicability to psychological processes.—*G. F. J. Lehner* (Vermont).

5105. Ollivier, A. *On the analysis of variation in general death rates.* *Metron*, 1938, **33**, 155-172.—The first section of this paper is devoted to the development of several theorems relating to the distribution of the number of deaths that would occur if the populations considered were samples from a composite universe selected by the method of unrestricted or the method of stratified random sampling. The second section takes up the use of a modified form of the squared Lexis ratio as a criterion for testing the statistical significance of variations in general death rates. The third section is an application of the theory.—*F. G. Allen* (Brown).

5106. Pillsbury, W. B. *The history of psychology.* (2nd ed.) Ann Arbor: George Wahr, 1937. Pp. 326. \$2.75.—*R. R. Willoughby* (Brown).

5107. Reiser, O. L. *Symbolic logic and the frontiers of social science.* *Psyche, Lond.*, 1936, **16**, 138-149.—The social sciences will not really be sciences at all until they achieve postulate systems by the application of the deductive method. With this in mind the author urges the importance of training in symbolic logic as part of the professional equipment of the social scientist.—*I. L. Child* (Yale).

5108. Santayana, G. *The realm of truth.* London: Constable, 1937. Pp. 142.—*R. R. Willoughby* (Brown).

5109. Shakow, D. *An internship year for psychologists (with special reference to psychiatric hospitals).* *J. consult. Psychol.*, 1938, **2**, 73-76.—The system of providing clinical training for medical students is favored for psychologists. Suggestions are made for the content of an internship year, particularly at a psychiatric hospital. An internship should serve several purposes: (1) facility in the use of acquired techniques, (2) saturation of the stu-

dent with experience in the practical aspects of psychopathology, (3) the development of the experimental-objective attitude, (4) acquaintance with the thinking and attitudes of colleagues, such as psychiatrists and social workers.—*P. S. de Q. Cabot* (Simmons).

5110. Steen, H. *Das Leib-Seele Problem in der Philosophie Hollands im 19. und 20. Jahrhundert.* (The mind-body problem in the philosophy of the Netherlands in the 19th and 20th centuries.) *Ned. Tijdschr. Psychol.*, 1938, **6**, 94-121.—This third installment discusses the contributions of the men who revived Spinoza's system, including Lotsy, van Vloten, Betz, Carp, Vloemans, and van der Tak. Whereas some of these emphasized Spinoza's concept of the meaning of mind and body in the divine hierarchy, others stressed his interpretation of body and mind as products of divine consciousness, forming the basis for the mental world and, on the other hand, determining the physical aspects of the universe.—*H. Beaumont* (Kentucky).

5111. Thorndike, E. L. *Great abilities: their frequency, causation, discovery and utilization.* *Sci. Mon., N. Y.*, 1938, **47**, 59-72.—High abilities are very rare. In general, very high ability is due to "(1) fairly favorable qualities in the genes plus (2) the favorable training which such genes select or create, plus (3) the favorable training which parents, friends and society in general provide." The writer cites general intelligence and singing as cases in which training is not an outstanding cause of very high ability. Throughout the article the plea is made for early recognition of and greater encouragement and assistance to persons of great ability, so that their capacities can be utilized more effectively.—*O. P. Lester* (Buffalo).

5112. Trainor, J. C. *The contributions of Alfred Korzybski.* *Psyche, Lond.*, 1936, **16**, 165-177.—The works of Korzybski (*Manhood of Humanity*, 1921; *Science and Sanity*, 1934) are an attempt to weld all the sciences into a coherent whole. He makes the contention throughout that there must be established a field of experimental science to be known as general semantics, corresponding roughly to the present field of psychology but to some extent overlapping some of the other sciences. As a contribution in that direction, Korzybski presents a theory of psycho-logics; Trainor contends that "Korzybski's theory of psycho-logics can be interpreted as a school of systematic psychology, and as such it commands serious attention as the first thoroughgoing illustration of theory in psychology which is scientifically mature."—*I. L. Child* (Yale).

5113. Tyrrell, G. N. M. *The Tyrrell apparatus for testing extra-sensory perception.* *J. Parapsychol.*, 1938, **2**, 107-118.—As an alternative to shuffled cards to provide the random choices necessary for ESP tests, the writer has developed a mechanical device consisting of five boxes, the correct one of which contains a lighted electric bulb. The lighted box is selected by a mechanical selector, the connections of which are further permuted by a

commutator. The trials and the correct responses by the subject are recorded on a moving paper strip.—*C. E. Stuart* (Duke).

5114. [Various.] **Statistical mapping.** New York: American Geographical Society, 1938. \$0.50.—(Not seen).

5115. **Varnum, W. C. Psychology in everyday life.** New York: McGraw-Hill, 1938. Pp. xii + 444. \$2.75.—This book stresses the practical, non-technical aspects of psychology and summarizes essential factual material. It contains 16 chapters, illustrated, with exercises, test questions and references for each. The factual material deals with the field of psychology, sensation, perception, learning, memory, thinking, motivation, intelligence; the biological basis and basic mechanisms of action, emotion, personality and industrial psychology, salesmanship and consumer education. The reader is shown how he can apply this factual information to the solution of his personal problems. There is a laboratory demonstration manual (Varnum, W. C., Group experiments in psychology, Gutenberg Press, Los Angeles, 1937) designed to accompany this text.—*L. J. Mack* (Pennsylvania).

5116. **Wait, W. T. The science of human behavior.** New York: Ronald, 1938. Pp. xv + 335. \$2.75.—The avowed aim of this book is "to present a generalized account, on the college freshman level, of the factors governing human behavior, . . . providing the readers with simple explanations, in terms of natural law." Chapter headings: introduction to the study of human behavior; man's ways of explaining his behavior; why certain behavior traits seem to run in families; ways in which behavior depends on structure—instincts; behavior depending on structure—emotions; mainsprings of behavior; how maturity modifies behavior; intelligence—observation and measurement; effect of experience on behavior; behavior not easily observed; behavior in the social group; differences between individuals and traits; abnormal behavior; mental hygiene and its applications; integration of personality.—*D. G. Ryans* (William Woods College).

5117. **Wilks, S. S. The analysis of variance and covariance in non-orthogonal data.** *Metron*, 1938, 13, 141-154.—"By making use of variates which can be either 0 or 1, the problem of analyzing variance and covariance in multiply-classified non-orthogonal data is reduced to a procedure of evaluating ratios of determinants. The application of the method to the problem of testing certain hypotheses is illustrated by a numerical example."—*F. G. Allen* (Brown).

5118. **Wirth, W. De beteekenis van Wilhelm Wundt in de z.g. crisis der moderne psychologie.** (The significance of Wilhelm Wundt in the so-called crisis of contemporary psychology.) *Ned. Tijdschr. Psychol.*, 1938, 6, 34-57.—The author discusses Wundt's contributions to the technique of experimentation and the analysis of consciousness, to psychophysical hypotheses and creative synthesis, to the theory of teleological unity, to a practical

understanding of personality, and to social psychology.—*H. Beaumont* (Kentucky).

[See also abstracts 5355, 5419.]

NERVOUS SYSTEM

5119. **Asher, L. Die Pharmakodynamik der Resistenz des zentralen Nervensystems gegen Sauerstoffmangel.** (The pharmacodynamics of the resistance of the central nervous system to oxygen deficiency.) *Verh. 1. inst. Kongr. ther. Un.*, 1937, 506-517.—*P. L. Krieger* (Leipzig).

5120. **Barron, D. H., & Matthews, B. H. C. The interpretation of potential changes in the spinal cord.** *J. Physiol.*, 1938, 92, 276-321.—The slow potential changes recorded from the dorsal and ventral roots of frogs and cats appear to be due to electrotonic spread of potential changes arising in the gray matter of the spinal cord. Some characteristics of these slow potentials are described. The mechanism of motor neurones is compared to that of sense organs. The experimental results are discussed in relation to the membrane theory of nervous action.—*M. A. Rubin* (Worcester State Hospital).

5121. **Berry, R. J. A. Brain size and mentality.** *Brit. med. J.*, 1936, Part 2, 62ff.—*R. R. Willoughby* (Brown).

5122. **Bishop, C. H., & O'Leary, J. L. Response of the optic cortex of the cat.** *Proc. Soc. exp. Biol.*, N. Y., 1938, 38, 532-535.—Following a single electric stimulus applied to the optic nerve, three types of electrical potentials are recorded from the optic cortex: the first, of 1 ms. duration each, are comparable to spikes of peripheral axons; the second are of 5 to 10 ms. duration; the third occur at 1/5 to 1/8 sec. intervals, like alpha waves in the rabbit. The second and third waves are differentiated by anesthesia and strychnine. Under the influence of anesthesia and $MgSO_4$ sufficient to keep the animal quiet, the same phenomenon is seen in the cat as in the rabbit: no response follows the second stimulus during the slow surface-negative phase of the first response, but the second response follows during the positive phase of the alpha waves following. With lighter anesthesia, response occurs at 25 ms. between stimuli, with maximum facilitation at 10 ms. interval. Ether suppresses this response. It is inferred that 2 optimal intervals should be found for repetitive stimulation of the optic nerve, at 100 per sec. and at alpha rhythm. This is shown to be the case. Effects of graded anesthesia suggest that the unanesthetized cat would show no period where the stimuli are completely ineffective, but that cyclic changes in irritability would appear. The relation of this point to sensory effects of flicker frequency is discussed in this journal, 1938, 38, 535.—*H. Peak* (Randolph-Macon).

5123. **Blair, H. A. On the kinetics of recovery during the refractory period in frog's nerve.** *J. Neurophysiol.*, 1938, 1, 127-143.—A mathematical formulation of events taking place during the re-

fractory period of frog nerve.—*M. A. Rubin* (Worcester State Hospital).

5124. *Bumke, O., & Foerster, O. Handbuch der Neurologie.* (Handbook of neurology.) Berlin: J. Springer, 1937. Pp. 13,200. RM. 1260.—*R. R. Willoughby* (Brown).

5125. *Case, T. J., & Bucy, P. C. Localization of cerebral lesions by electro-encephalography.* *J. Neurophysiol.*, 1938, 1, 245-261.—Various localizing signs of cerebral lesions are described.—*M. A. Rubin* (Worcester State Hospital).

5126. *Dusser de Barenne, J. G. Experimentelle Physiologie des Kleinhirns.* (Experimental physiology of the cerebellum.) In *Bumke & Foerster, Handbuch der Neurologie*, 1937, 2, 235-267.—The cerebellum is neither the "reflex organ of muscle tonus" (Luciani), nor the "center of statotonus" (Edinger). However, it can be said that it is a part of the central nervous system which is essential for the harmonious performance of different movements in higher animals, especially higher mammals. Impediments created by extirpation of the cerebellum involve the co-ordination of the contraction of skeletal muscles, especially of the spinal column, and the extremities, not only in the static position and locomotion, but also in different other movements. Under normal conditions a series of centripetal excitations support these co-ordinative activities of the cerebellum, especially the proprioceptive excitations emanating from the body periphery to the cerebellum and the nerve impulses originating in the vestibule.—*P. L. Krieger* (Leipzig).

5127. *Dusser de Barenne, J. G., & McCulloch, W. C. The direct functional interrelation of sensory cortex and optic thalamus.* *J. Neurophysiol.*, 1938, 1, 176-186.—The effects of local strychninization of the sensory cortex and sensory thalamic nuclei of the monkey were observed by means of electrothalamograms and electrocorticograms respectively. The results are in agreement with the notion that the thalamus is predominant over the sensory cortex and determines the part of the body to which the animal refers its symptoms of sensory excitation, even though they are initiated in the sensory cortex.—*M. A. Rubin* (Worcester State Hospital).

5128. *Foerster, O. Motorische Felder und Bahnen.* (Motor areas and pathways.) In *Bumke & Foerster, Handbuch der Neurologie*, 1936, 6, 1-357.—A discussion of the specific effects of the electrical stimulation of individual cortical motor areas, and the resulting epileptic seizures and motor impediments. The motor areas are closely interrelated, and each contributes its specific quota to kinetic and static phenomena. Eliminating a single area interferes in a characteristic manner with the effectiveness of the whole. Voluntary movements are completely and permanently eliminated only if all motor areas of both hemispheres are inoperative. This rare condition occurs only as a result of extensive cortical lesions which are innate or acquired in early infancy.—*P. L. Krieger* (Leipzig).

5129. *Green, H. D., & Walker, A. E. The effects of ablation of the cortical motor face area in monkeys.* *J. Neurophysiol.*, 1938, 1, 262-280.—The effects of ablation of cortical face motor and premotor areas on motility of the facial musculature of the monkey *Macaca mulatta* are described. The following factors, listed in the order of their importance, are responsible for recovery of motility after ablation: (1) remaining ipsilateral motor or premotor face area cortex. (2) contralateral motor and premotor face regions, (3) subcortical structures, and (4) other cortical areas.—*M. A. Rubin* (Worcester State Hospital).

5130. *Hughes, J., Strecker, E. A., & Appel, K. E. Some clinical and physiological aspects of the brain potentials.* *Amer. J. Psychiat.*, 1938, 94, 1179-1186.—The effect of sodium amytal narcosis, the effect of changes in CO₂ tension of the blood, neural mechanism of the potentials, factors affecting neurone rhythm, and the relation of cerebral potentials to potentials in nerve fibers are discussed.—*R. Goldman* (Boston Psychopathic Hospital).

5131. *Jasper, H. H., & Andrews, H. L. Brain potentials and voluntary muscle activity in man.* *J. Neurophysiol.*, 1938, 1, 87-100.—Simultaneous records are taken of precentral cortical and muscle potentials from patients with paralysis agitans and petit mal epilepsy. A close correspondence between the frequencies of the two potentials was observed in cases of normal tremor movements. Factors altering the potential frequency are discussed. Cortical seizure waves in epileptics may be associated with corresponding bursts of clonic muscle movements. It is suggested that when such correspondence is lacking, subcortical centers may take over control of some motor pathways.—*M. A. Rubin* (Worcester State Hospital).

5132. *Ledingham, J. M., & Scott, D. The spread of the local action potential in the single nerve fiber of the crab.* *J. Physiol.*, 1938, 92, 41-43P.—*M. A. Rubin* (Worcester State Hospital).

5133. *Lorente de N6, R. Limits of variation of the synaptic delay of motoneurons.* *J. Neurophysiol.*, 1938, 1, 187-194.—The minimal synaptic delay of ocular motoneurons in the rabbit is 0.5-0.6 msec., and the maximal delay 0.8-0.9 msec. The delay may be shortened by facilitation or by calling a greater number of synapses into action; it may be lengthened by decreasing the stimulus intensity or by raising the motoneuron threshold.—*M. A. Rubin* (Worcester State Hospital).

5134. *Lorente de N6, R. Synaptic stimulation of motoneurons as a local process.* *J. Neurophysiol.*, 1938, 1, 195-206.—From histological and electrical studies of the ocular motoneurons of the rabbit it is concluded that a localized process occurring underneath a dense group of synaptic knobs is responsible for setting up a new impulse by a motoneuron.—*M. A. Rubin* (Worcester State Hospital).

5135. *Lorente de N6, R. Analysis of the activity of the chains of internuncial neurons.* *J. Neurophysiol.*, 1938, 1, 207-244.—On the basis of anatomi-

cal and physiological data it is proposed that the elementary unit of transmission is the multiple chain of internuncial neurons. This consists of many neurons converging at a common focus, and it supersedes the classical reflex arc. Closed, or reverberating, chains of neurons are also involved in conduction of impulses. The properties of the two types of neuron chains are described and discussed.—*M. A. Rubin* (Worcester State Hospital).

5136. Magoun, H. W., Harrison, F., Brobeck, J. R., & Ranson, S. W. Activation of heat loss mechanisms by local heating of the brain. *J. Neurophysiol.*, 1938, 1, 101-114.—A delimited region extending from the telencephalon to the anterior portion of the midbrain which responds to heat stimulation by activating heat dissipation mechanisms is described.—*M. A. Rubin* (Worcester State Hospital).

5137. Morgan, L. O. Cell changes in some of the hypothalamic nuclei in experimental fever. *J. Neurophysiol.*, 1938, 1, 281-285.—*M. A. Rubin* (Worcester State Hospital).

5138. Ono, M., & Kato, H. Beitrag zur Kenntnis von den Kleinhirnkernen des Kaninchens. (A contribution to the knowledge of the cerebellar nuclei in the rabbit.) *Anat. Anz.*, 1938, 86, 245-259.—In the rabbit, the cerebellar nuclei are more complicated than previously thought. They fall into 4 parts: n. lateralis; n. interpositus anterior and posterior; and n. medialis (T. Ogawa). These centers are more or less closely connected, in the rabbit, with the vestibular and cochlear nuclei.—*P. L. Krieger* (Leipzig).

5139. Rademaker, G. G. J. Experimentelle Physiologie des Hirnstammes. (Experimental physiology of the brain stem.) In Bumke & Foerster, *Handbuch der Neurologie*, 1937, 2, 187-234.—Rigidity following decerebration probably results from a condition of extreme excitation in the spinal motor centers, caused by the elimination of currents which normally issue from the severed parts of the central nervous system to the motor centers. It is likely that those excitations which elicit the different postural reflexes are of primary importance in this connection. This rigidity is always accompanied by the elimination of postural reflexes, while the recurrence of the latter, e.g. after extirpation of the cerebellum, coincides with the cessation of rigidity. Proprioceptive stimuli from the striated muscles and labyrinth play a prominent part in maintaining rigidity. Other types of proprioceptive stimuli supplement each other and affect the spinal mechanism as well as the center of rigidity.—*P. L. Krieger* (Leipzig).

5140. Schmitt, O. H. A capacitance theory of the local excitatory process in nerve. *J. Physiol.*, 1938, 92, 38-39P.—The advantages to the theory of nerve excitation of assuming that the local excitatory process consists in a change of membrane capacitance, rather than in a resistance breakdown, are discussed.—*M. A. Rubin* (Worcester State Hospital).

5141. Schweitzer, A., & Wright, S. Action of hordenine compounds on the central nervous system. *J. Physiol.*, 1938, 92, 422-438.—The central action in cats of various hordenine compounds were examined, employing the knee-jerk as a criterion.—*M. A. Rubin* (Worcester State Hospital).

5142. Serota, H. M., & Gerard, R. W. Localized thermal changes in the cat's brain. *J. Neurophysiol.*, 1938, 1, 115-124.—A study of the temperature changes of the cat's brain during anesthesia and on optic, somesthetic and olfactory stimulation.—*M. A. Rubin* (Worcester State Hospital).

5143. Travis, L. E., & Egan, J. P. Conditioning of the electrical response of the cortex. *J. exp. Psychol.*, 1938, 22, 524-531.—For the purpose of this study the authors assumed that when the alpha rhythm is obliterated or depressed in relation to the onset and duration of a stimulus, a response has occurred. Therefore, if such a response appears with respect to an originally ineffective stimulus by virtue of association with another and effective stimulus, conditioning of the cortex has been demonstrated. Auditory and visual stimuli were used because of their different effects upon brain wave patterning. Results were as follows: (1) the effectiveness of tone in altering potential patterning when presented with light was greater than that for tone alone, pre-conditioning; (2) tone and light latencies did not change during paired stimulation series; (3) both latency and perseveration time were longer for tone alone, post-conditioning, than for tone alone, pre-conditioning; (4) the latency for tone alone, post-conditioning, was longer than that for tone with light; (5) the perseveration time for the paired stimuli was less than that for light alone, pre-conditioning; (6) the test for the effectiveness of tone without reinforcement revealed the instability of the CR. It is concluded that conditioning of the electrical response of the cortex occurred under the conditions of the study.—*H. W. Karn* (Pittsburgh).

5144. Trurnit, H. J. Über den Einfluss verschiedener Reizbedingungen auf Grösse und Ablauf der Wärmebildung am isolierten, überlebenden Kaltblüterrückenmark. (The influence of varying stimulus conditions on the size and course of the warmth organization in isolated, living spinal cords from cold-blooded animals.) *Z. Biol.*, 1937, 98, 352.—*P. L. Krieger* (Leipzig).

5145. Trurnit, H. J. Über den Aufbau der Wärmebildungskurve des erregten, isolierten Kaltblüterrückenmarkes. (The form of the curve of warmth organization of isolated spinal cords of cold-blooded animals, during stimulation.) *Z. Biol.*, 1937, 98, 370.—*P. L. Krieger* (Leipzig).

5146. Walker, A. E., & Fulton, J. F. Hemidecortication in chimpanzee, baboon, macaque, potto, cat and coati: a study in encephalization. *J. nerv. ment. Dis.*, 1938, 87, 677-700.—"The clinical course following hemidecortication of a chimpanzee and a baboon is presented in detail. The effects of hemidecortication in a comparative series of animals are

discussed with particular reference to spasticity, which is much more intense in chimpanzee and man following hemidecortication than in monkey or carnivora. The difference in the effect is partly explicable on the basis of greater bilaterality of representation in the lower animals, but the more important factor is the more extensive encephalization of function in anthropoids and man.—C. R. Atwell (Boston Psychopathic Hospital).

5147. Walker, A. E., & Green, H. D. Electrical excitability of the motor face area: a comparative study in primates. *J. Neurophysiol.*, 1938, 1, 152-165.—M. A. Rubin (Worcester State Hospital).

5148. Weinbach, A. P. Some physiological phenomena fitted to growth equations. II. Brain potentials. *Hum. Biol.*, 1938, 10, 145-150.—Data from Lindsley and from Smith giving variation in Berger rhythm (α waves) with age were fitted graphically by the equation $f = f_m - f_m e^{-k(A-A')}$; f is the frequency at age A , k equals 0.468, $f_m = 9.0$ or 11.5, and $A' = 0.77$. Time is counted from A' , or when the extrapolated curve reaches the age axis. Since the variation in the brain waves may be expressed by an equation used for growth curves, it is concluded that the variation is a resultant of growth.—O. W. Richards (Spencer Lens Company).

5149. Wyss, O. A. M. On an ipsilateral motor effect from cortical stimulation in the macaque monkey. *J. Neurophysiol.*, 1938, 1, 125-126.—M. A. Rubin (Worcester State Hospital).

[See also abstracts 5162, 5172, 5180, 5234, 5256, 5275.]

RECEPTIVE AND PERCEPTUAL PROCESSES

5150. Bartley, S. H. A central mechanism in brightness discrimination. *Proc. Soc. exp. Biol.*, N. Y., 1938, 38, 535-536.—When the flash rate of light is reduced below the fusion point (for human subjects), the average impression is greater than that from the same amount of light uniformly distributed in time. At 8-10 flashes per second the effect is greater than that from steady light of the same intensity. This is called the Brücke effect. It is suggested that this effect is due to the same central mechanism underlying the enhanced cortical responses from direct optic stimulation. (See Bartley and O'Leary, *Proc. Soc. exp. Biol.*, N. Y., 1938, 38, 532.)—H. Peak (Randolph-Macon).

5151. Bissonnette, T. H., & Csech, A. G. December hatched pheasants lay in July in normal daylight. *Science*, 1938, 88, 35.—F. A. Mote, Jr. (Brown).

5152. Clamann, H. G. Über Netzhautschädigungen bei Fliegern. (Retinal injuries in fliers.) *Luftfahrtmedizin*, 1938, 2, 314-316.—In spite of careful examination, Clamann could find no scotomata in 37 fliers with good sight, who had been flying for years, and demonstrated the blind spot without questioning. The contrary findings of Zade and ten Doesschate are probably due to the

facts that aviators at that time did not wear protecting glasses and flew in planes without cabin roofs. Still more probable is it that poor nutrition and perhaps avitaminosis played a role.—P. L. Krieger (Leipzig).

5153. Clark, L. B. Dark adaptation in *Dineutes*. *J. gen. Physiol.*, 1938, 21, 375-382.—Dark adaptation data for the whirligig beetle at three different levels of light adaptation are fitted by the same curve, indicating that dark adaptation follows parts of the same course irrespective of light adaptation. The intensity of the adapting light merely determines the level at which dark adaptation begins.—M. A. Rubin (Worcester State Hospital).

5154. Corlette, M. B., Youmans, J. B., Frank, H., & Corlette, M. G. Photometric studies of visual adaptation in relation to mild vitamin A deficiency in adults. *Amer. J. med. Sci.*, 1938, 195, 54-65.—From a study of 54 healthy adults, the authors propose an initial recovery reading of 0.70 millifoot-candles as a tentative value for the normal limit of dark adaptation. By the standards arrived at in this study about 50% of a group of adult ambulatory out-patients were found to have poor dark adaptation, indicating mild vitamin A deficiency. The great majority of these patients who received treatment showed definite improvement in dark adaptation.—W. J. Brogden (Johns Hopkins).

5155. Craik, K. J. W. The effect of adaptation on differential brightness discrimination. *J. Physiol.*, 1938, 92, 406-421.—(1) The differential threshold of the eye is lowest when the "test" and "adapting" illuminations are equal; (2) it is markedly increased when the adapting illumination greatly exceeds the test intensity; (3) adaptation to illuminations far below the test intensity has a similar effect as in (2), which is greater for a large test field than for a small centrally fixated one.—M. A. Rubin (Worcester State Hospital).

5156. Crozier, W. J., Wolf, E., & Zerrahn-Wolf, G. Critical illumination and flicker frequency, as a function of flash duration: for the sunfish. *J. gen. Physiol.*, 1938, 21, 313-334.—A study of the effects on the relations between critical flash illumination and the flash frequency for the response of the sunfish to visual flicker when the ratio of light time to dark time in a flicker cycle is varied. The results indicate that alteration of the duration of the dark interval has the same kind of effect as altering the visual area.—M. A. Rubin (Worcester State Hospital).

5157. Davis, A. H. Some aspects of the problem of noise. *Occup. Psychol.*, 1938, 12, 43-55.—This is a summary of some of the American and British experiments on the physiological effects of noise; a brief discussion of noise measurement, including subjective and objective noise meters; and some comments on the reduction, absorption, and suppression of noise.—H. Moore (Mt. Holyoke).

5158. Döderlein, W. Über Presbyakusis. (Presbycusis.) *Arch. Ohr., Nas., u. Kehlkheilk.*, 1938, 144, 295-302.—The physiological limits of hearing

were determined in 150 old people. The upper limit lies at about 5000 H, the lower at about 64 H, and the limit for the whispered voice is approximately 4 meters from the ear. Each life period has its characteristic acoustic picture. Presbycusis is a physiological aging process, beginning at the twentieth year, advancing slowly at first, then more quickly, and remaining stationary at the above levels in the most advanced ages, when acuity is about a quarter of that at 20 years. The anatomical localization is in the elastic tissue of the basal membrane of the cochlea.—*P. L. Krieger* (Leipzig).

5159. **Eckert, F.** Die positiv phototaktische Einstellreaktion des Komplexauges von *Daphnia pulex* im Zweilichtversuch. (The positive phototactic adaptation reaction of the complex eyes of *Daphnia pulex* in the double-light test.) *Lotus*, 1935, 83, 40-70.—*P. L. Krieger* (Leipzig).

5160. **Ehlers, H.** Blindhed og blindeforsorg. (Blindness and care of the blind.) *Ugeskr. Laeg.*, 1938, 100, 681-684.—A general lecture to medical students in Copenhagen about the various causative factors of blindness, the provisions in Denmark for the care of the blind in private and public institutions, etc.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5161. **Ehrenberg, W.** Die Farbenwelt und ihre zahlenmässige Erfassung. (The color world and the quantitative approach to it.) *Z. ges. Naturwiss.*, 1936, 2, 81-85.—*P. L. Krieger* (Leipzig).

5162. **Fletcher, H.** Neural mechanism of hearing. *Laryngoscope*, St Louis, 1937, 47.—The physicist contents himself with making measurements external to the ear. From such measurements he infers something about the mechanism of hearing. Measurements of the intensity of sound produced at the threshold of hearing enable him to calculate the sensitivity of the nerve endings. It turns out that this sensitivity is as great as it possibly could be without hearing the jostling of the molecules due to the heat agitation. Measurements of the minimum perceptible differences in pitch, and also measurements of the masking effect of thermal noise, each give data which when properly interpreted enable the physicist to calculate the position on the basilar membrane of maximum stimulation for tones of different frequency. By making measurements of the loudness of tones and its relation to the masking effect, one can determine approximately the relation between the number of nerve discharges per second and stimulation expressed in terms of the power necessary to excite the threshold.—(Courtesy *Child Develp. Abstr.*).

5163. **Foges, G.** Das Gehörorgan des Fliegers und seine Bedeutung für die Sicherheit des Flugbetriebes. (The auditory organ of flyers and its significance for safety in aviation.) *Arch. Gewerbepath. Gewerbehyg.*, 1935, 6, 197-221.—*P. L. Krieger* (Leipzig).

5164. **Folger, H. T., & Alexander, L. E.** The response to mechanical shock by the cercariae of *Bucephalus elegans*. *Physiol. Zool.*, 1938, 11, 82-

88.—After a definite reaction time which varies inversely with the magnitude of the shock, the cercariae react to mechanical shock by cessation of movement. No immediate reaction to another shock is possible and recovery is complete in 30 seconds. Partial recovery, indicated by a reaction time that is less than that obtained after complete recovery, occurs with this species.—*O. W. Richards* (Spencer Lens Company).

5165. **French, R. S.** An introduction to the problems of sight conservation. A handbook for teachers and school executives. Sacramento: Calif. State Print. Office, 1937. Pp. 76.—*R. R. Willoughby* (Brown).

5166. **French, R. S., & Baker, C.** The sight conservation council of northern California. First annual report, June 1, 1936 to June 1, 1937. Stanford University, Calif.: Stanford Univ. Press, 1937. Pp. 23.—*R. R. Willoughby* (Brown).

5167. **Geismer, A.** Die lokomotorischen Reaktionen von *Helix pomatia* auf Helligkeit und Dunkelheit und der Einfluss von Eingriffen an Augen und Zentralnervensystem. (The locomotor reaction of *Helix pomatia* in brightness and darkness and the influence of ablations of the eyes and central nervous system.) *Zool. Jb., Abt. 3*, 1935, 55, 95-130.—*P. L. Krieger* (Leipzig).

5168. **Gemelli, A.** La psicologia della percezione. (The psychology of perception.) *Riv. Fil. neoscholast.*, 1936, 28, 15-46.—Recent experimental data on perception, especially from the Gestalt school, are reviewed with stress on their importance to philosophers. The author shows how the facts of modern experimental psychology justify a theory of perception remarkably similar to that of the Aristotelian-Thomistic psychology, a similarity brought out especially in the work of Mercier and T. V. Moore. The Scholastic doctrine of a common sense was posited in ignorance of physiology, but it was psychologically sound, and has been given an irrefutable experimental basis in the author's and his students' research. Recent Gestalt theory, by reducing perception to sensory organization, and by the thesis that "perceptive processes are isomorphic with processes taking place in the cerebral cortex," involves a return to sensationalism, and represents a regression from the positions taken by Brentano, Stumpf, Meinong, and Benussi.—*C. J. Herrick* (Pennsylvania).

5169. **Gertz, H.** Blickaberrationen-Netzhautkorrespondenz. (Aberrations of fixation—retinal correspondence.) *Acta ophthalmol., Kbh.*, 1935, 13, n.p.—*P. L. Krieger* (Leipzig).

5170. **Graham, C. H., & Kemp, E. H.** Brightness discrimination as a function of the duration of the increment in intensity. *J. gen. Physiol.*, 1938, 21, 635-650.—The influence on brightness discrimination of varying the duration of ΔI is studied. At constant intensity, $\Delta I/I$ is highest for the shortest duration (0.002 sec.) and lowest for longer durations up to the critical exposure time. For durations longer than the critical duration $\Delta I/I = \text{Const.}$

The Bunsen-Roscoe law applies to the data up to the critical exposure time. For values greater than this, $\Delta I = \text{Const}$. Hecht's photochemical theory describes the data of these experiments if it be assumed that brightness discrimination is determined by a constant amount of photochemical breakdown of light-sensitive material.—*M. A. Rubin* (Worcester State Hospital).

5171. **Gridgeman, N. T., & Wilkinson, H.** Night-blindness and vitamin-A deficiency. *Lancet*, 1938, 234, 905-907.—30% of 102 subjects showed deficient dark-adaptation. Administration of 35,000 I.U. over a period of 7 days partially repaired the deficiency.—*W. J. Brogden* (Johns Hopkins).

5172. **Hughson, W., Thompson, E., & Witting, E. G.** Neural mechanisms of hearing. *Laryngoscope*, St Louis, 1937, 47, 480.—Under strict aseptic technique specific ablations of the dorsal and ventral cochlear ganglia were produced in cats. After sufficient time for degeneration had elapsed the electrical responses from the round window and from the trapezoid body were studied by measurement of electrical potential changes following acoustic stimulation of the animal's ear. The extent of degeneration was determined by Marchi preparations of the brain stems. In addition, graded divisions of the auditory nerve itself have been carried out. It was found that the so-called cochlear response is independent and unrelated to either the presence or absence, in whole or in part, of the neural elements of the cochlea. Action currents, however, by their presence or absence following ablation of specific regions of the central auditory pathways, controlled by histologic study of degeneration, must be the standard by which true auditory response is to be measured. Theoretically an experimental bilateral elimination of action currents should result in the production of a clinically deaf animal. In such an animal the cochlear response should remain unimpaired. Up to the present time complete absence of the organ of Corti, whether congenital, atrophic, or experimental is the only condition in which the cochlear effect cannot be elicited.—(Courtesy *Child Developm. Abstr.*).

5173. **Jaensch, P. A.** Untersuchungsmethoden der optischen Funktionen. (Methods of investigating optic functions.) In Bumke & Foerster, *Handbuch der Neurologie*, 1936, 4, 130-172.—From the physiological point of view, the functions of the fovea may be distinguished as the senses of light, color, and form. According to Hering, the last mentioned may be analyzed further into a sense of optic space (judgment of differences in location) and a sense of optic analysis. Its quality is largely determined by the degree of visual acuity, which, according to Elschnigg, cannot be expressed in mathematical or physical terms, but is the complex function of the fovea centralis and the optic apparatus, influenced by many factors inside and outside of the eye. The article discusses the methods of testing the senses of light and color (central visual

ability), indirect vision, and binocular vision. A final paragraph is devoted to methods of investigating simulation and aggravation.—*P. L. Krieger* (Leipzig).

5174. **Jenkins, W. L.** Studies in thermal sensitivity: 6. The reactions of untrained subjects to simultaneous warm + cold + electric shock. *J. exp. Psychol.*, 1938, 22, 564-572.—In this study untrained subjects were tested with a variety of compound temperature stimulations plus mild electric shock. With simple warm stimulation plus shock, reports of "hot" and "burning hot" were obtained. When cold was added to the complex, the positive effects fell off and were negligible at the lower temperatures. It has been shown that "hot" can be synthesized readily from warm + shock, infrequently from warm + cold, and occasionally from neutral + shock. It is therefore maintained that the synthetic approach can give no light upon the normal physiological basis for the common experience "hot." Because of the largely negative results with warm + cold, and the positive findings with warm + shock without cold, it is suspected that the Alrutz theory does not apply to the common experience of "hot." The final test must be analysis; not synthesis.—*H. W. Karn* (Pittsburgh).

5175. **Krechevsky, I.** An experimental investigation of the principle of proximity in the visual perception of the rat. *J. exp. Psychol.*, 1938, 22, 497-523.—By means of the Lashley jumping stand for visual discrimination learning, data were obtained which suggest the following conclusions: (1) Under certain conditions of need, such conditions being induced by the fundamental needs of the organism and conditioned by the specific problem situation, the rat tends to group discontinuous visual stimuli according to the principle of proximity. (2) The perceptual process, under those conditions of need, involves the operation of "forces of attraction" between the members of a visual group of such a nature as to make the rat prefer a continuous Gestalt over that of a discontinuous grouping, even though the original training be on the discontinuous stimulus-complex. (3) When the conditions of need are not present, the organization to be expected on the basis of proximity may not take place. (4) The perceptual process which does occur, under the conditions of absence of specific need, is not of such a nature as to involve "forces of attraction" between the members of a visual group which would cause the animal to prefer the continuous Gestalt over the discontinuous one. Instead, it is suggested that the perception achieved may involve a less articulated, more homogeneous organization.—*H. W. Karn* (Pittsburgh).

5176. **Kwiek, M.** Zależności między własnościami fizycznymi dźwięku a jego słyszalnością, ze szczególnym uwzględnieniem zagadnień muzycznych. (The relation between the physical properties of a tone and its perception, with special emphasis on problems in music.) *Kwart. psychol.*, 1938, 10, 59-102.—The author has studied the relations be-

tween sound pressure, frequency, apparent strength, and intensity, which he shows are not in conformity with the Weber-Fechner laws. They lead, however, to generalizations of these laws that are more or less in accord with experience. On the basis of his analysis the author is able to represent graphically the connection between sound pressure, frequency, and sensation, which makes possible the solution of a number of musical problems pertaining to matters of tone color.—*T. M. Abel* (Trade Extension Classes, New York City).

5177. **Langenbeck, B.** *Das Symmetriegesetz der erblichen Taubheit.* (The law of symmetry of hereditary deafness.) *Z. Hals-, Nas- u. Ohrenheilk.*, 1936, 39, 223-261.—*P. L. Krieger* (Leipzig).

5178. **Laval, J.** *Vitamin D and myopia.* *Arch. Ophthalm.*, Chicago, 1938, 19, 47-54.—During the last six years there have been 48 myopic patients whom Laval has considered young enough (from 5 to 17 years of age) for trial treatment with vitamin D and milk. These patients have taken vitamin D and milk continuously and have been seen at intervals of nine months for from three to six years. In every one of these patients there has been an increase in the amount of the myopia. In some the increase has been only 1 diopter; in others it has been as much as 2.5 diopters, but not one patient has had a decrease in the amount of the myopia or even an arrest of the progress. All the dietetic and hygienic measures instituted were of no avail in arresting the progress of the myopia. Accordingly, the author disagrees with those who say that treatment with vitamin D and calcium helps patients who have myopia by reducing the myopia, keeping it stationary or preventing as rapid an increase as is usually found in patients who have not used this form of therapy.—(Courtesy *Child Developm. Abstr.*).

5179. **Lindberg, B. J.** *Experimental studies of colour and non-colour attitude in school children and adults.* *Acta Psychiat.*, Kbh., 1938, Suppl. 16. Pp. 165.—This is a report of two tests constructed by the author, the so-called "ring test" and the sorting test, which were constructed (1) to record the subject's attention to difference in color and (2) to induce him to arrange cards according to size and color. 2446 elementary-school students and 218 adult surgical patients were tested. Among the results were: the tendency to color responses decreases with increasing age in elementary school; there seems to be an inverse correlation with intelligence; in all age groups girls seem to have a somewhat lower degree of color attitude than boys. This difference between the sexes was discovered in both tests, and is also found in both adult mental patients and normal adults. The "substable" types of Sjöbring had the greatest color attitude, the "subvalid" types the least color attitude, as investigated in two different clinics on 224 cases, respectively. The results on the whole seem to coincide with Sjöbring's general theory. Extensive bibliography, and plates of the tests.—*M. L.*

Reymert (Mooseheart Laboratory for Child Research).

5180. **Maison, G. L., Grether, W. F., & Settlege, P. H.** *Monocular color discrimination after unilateral occipital lobectomy in rhesus monkeys.* *J. comp. Psychol.*, 1938, 25, 451-455.—"Differential color limens were obtained at three points in the spectrum for normal monkeys, for monkeys with unilateral occipital lobectomy, and in the latter with vision restricted to one eye." The number of cases was 10. Three possible interpretations are offered to account for the difference between the findings reported here and those on humans with similar lesions.—*F. A. Mote, Jr.* (Brown).

5181. **Martin, O.** *The given and the interpretative elements in perception.* *J. Phil.*, 1938, 35, 337-345.—Three factors may be recognized in an analysis of perceptual knowledge: (1) the given element intuitively felt; (2) what the object or thing appears to be; and (3) what we consciously and reflectively take it to be. The third factor is under the control of the perceiver, and it is here, but never in the first two factors, that error occurs. There are many perceptual experiences which the individual does not actively interpret, but which have meaning for him. This meaning is determined by the past experience of the individual, which determines his present "mental set," which in turn determines the present appearance. Any quality or relation given as a whole is immediately known to be what it really is. The appearance arises without "taking thought," due to past experience which classifies and makes meaningful the perceptions. Cognitively we can accept or reject appearances.—*J. G. Miller* (Harvard).

5182. **Mast, S. O.** *Factors involved in the process of orientation of lower organisms in light.* *Biol. Rev.*, 1938, 13, 186-224.—The same factors are not involved in the process of orientation to light of rhizopods, flagellates, worms, and insects. In general, these organisms have only two factors in common: (1) symmetry is not involved, and (2) the light does not act continuously as a stimulus once orientation is effected. The other factors characteristic for each group of organisms are discussed. The process of orientation is useful, since it usually directs the organism toward favorable environmental regions. From the orienting process in ants it is concluded that "they possess something akin to memory."—*M. A. Rubin* (Worcester State Hospital).

5183. **McCord, C. P., Teal, E. E., & Witheridge, W. N.** *Noise and its effect on human beings.* *J. Amer. med. Ass.*, 1938, 110, 1553-1560.—The compilation of material making up this report presents extensive evidence that genuine injury is widespread as a result of noise action and that noise deafness is the chief of these dysfunctions in terms of both frequency and severity. Vibration in ranges below audibility has a prominent role in the production of injuries arbitrarily classed as noise diseases.—*W. J. Brogden* (Johns Hopkins).

5184. **Merrylees, W. A.** The status of sensa. *Aust. J. Psychol. Phil.*, 1938, 16, 41-59.—The first instalment of a logical discussion and analysis of the nature of the sense datum. This item, which is traditionally distinguished from the act of sensing, occupies a position difficult if not impossible to define. As is illustrated by pain, touch, and vision, the sensum turns out to be an attribute subordinate to the "perceptual appearance," which is given as a whole. It is thus not an experiential phenomenon, but a kind of abstraction of the order of the sense-presentation, from which the sensum may however be distinguished. These conclusions are somewhat at variance with the views of Stout.—*H. D. Spoerl* (American International College).
5185. **Mink, P. J.** Das innere Ohr als Tastorgan. (The inner ear as an organ of touch.) *Msch. Ohrenheilk.*, 1937, 71, 694-717.—*P. L. Krieger* (Leipzig).
5186. **Pollock, L. J.** Vibration sense. *Arch. Neurol. Psychiat.*, Chicago, 1937, 37, 1383-1386.—*R. R. Willoughby* (Brown).
5187. **Priest, I. G., & Brickwedde, F. G.** The minimum perceptible colorimetric purity as a function of dominant wave-length. *J. opt. Soc. Amer.*, 1938, 28, 133-139.—A 4° square, two-part photometric field, symmetrical about a vertical division and viewed through a pupil 3 mm. in diameter, is illuminated in both parts by artificial sunlight at a constant brightness of about 3 or 4 millilamberts (retinal illumination 70 to 90 photons) with a surrounding field of about 0.5 millilambert. Homogeneous light is added to one-half and sunlight simultaneously subtracted, so that the field remains matched in brightness. Two adjustments of the mixture are made: (1) the least purity perceptible with certainty (p_{max}), and (2) the greatest imperceptible purity (p_{min}). The purity of these mixtures is then measured, increased accuracy being obtained by measuring a known large multiple of the homogeneous brightness. Values of p_{max} and p_{min} have been obtained as a function of the wavelength of the homogeneous component; these values are reported in detail, and some discussion of their interpretation is given.—*R. J. Beitel, Jr.* (American Optical Company).
5188. **Reichelt, E.** Zur Theorie der Oberflächenanästhesie. (The theory of superficial anesthesia.) *Arch. exp. Path. Pharmac.*, 1937, 187, 41-45.—*P. L. Krieger* (Leipzig).
5189. **Riddoch, G.** The clinical features of central pain. *Lancet*, 1938, 234, 1093-1098; 1150-1156; 1205-1209.—*W. J. Brogden* (Johns Hopkins).
5190. **Rudert-Kotte, R.** Die binokulare Zeitparallaxe unter typologischem Gesichtspunkte. (Binocular time parallax from the typological point of view.) *Z. angew. Psychol.*, 1937, 53, 251-260.—Supplementary to an investigation by O. Klemm on temporal parallax, the author, using 20 men, 18 women, and 11 children (aged 8-12 years), found that Δt , the increment of time difference between stimulation of the two eyes at which an object appears distinct (the minimum value of Δt) to the point where it appears blurred (maximum value of Δt), varies for different individuals but is fairly constant for each individual—a fact related to typology. Binocular Δt -values range from 40 σ to 120 σ . The average value of Δt is in general greater for children (107 σ) than for adults (75 σ).—*G. F. J. Lehner* (Vermont).
5191. **Schuck, C., & Miller, W. O.** Dark adaptation of the eye and vitamin A storage in young adults. *Arch. intern. Med.*, 1938, 61, 910-915.—Single biophotometric tests of a group of 94 college freshman women gave readings that were interpreted to indicate poor dark adaptation in at least 7% of the cases. The daily administration of 28,000 to 29,000 U.S.P. units of vitamin A in the form of halibut liver oil capsules to half the 18 subjects with poor dark adaptation resulted in lowered readings in contrast to those for the respective controls, which were in most instances as high or higher at the end of the five-week experimental period than at the beginning. Administration of vitamin A to one of two normal subjects brought an improvement in dark adaptation.—*W. J. Brogden* (Johns Hopkins).
5192. **Singh, I.** The effect of adaptation to electrical and chemical stimulation on the excitability of the anterior retractor of the byssus of *Mytilus edulis*. *J. Physiol.*, 1938, 92, 241-248.—The effects of various inorganic ions on the rate of adaptation to chemical and electrical stimulation of smooth muscle are described.—*M. A. Rubin* (Worcester State Hospital).
5193. **Soltys, A., & Umrath, K.** Über die Erregungssubstanz der Mimosoideen. (Concerning the excitation substance of the sensitive plants.) *Biochem. Z.*, 1936, 284, 247-255.—*P. L. Krieger* (Leipzig).
5194. **Tinker, M. A.** Susceptibility to optical illusions: specific or general? *J. exp. Psychol.*, 1938, 22, 593-598.—The amount of error in viewing the Müller-Lyer, vertical-horizontal, and Poggendorff illusions was measured with three groups of subjects: 64 university students, 100 adults, and 35 children 9-10 years old. The measurements were highly reliable and the trends from group to group were fairly consistent. The Müller-Lyer illusion yielded the largest mean error, the vertical-horizontal next largest, and the Poggendorff smallest. Susceptibilities to the Müller-Lyer and vertical-horizontal illusions are correlated to a moderate degree. Error in the Poggendorff illusion, however, is not related to the amount of error in either of the other two. It was concluded that susceptibility to the Poggendorff illusion is specific, and that susceptibilities to the other two illusions have some element in common.—*M. A. Tinker* (Minnesota).
5195. **Tomaschek, H.** Beiträge zur Klärung der Frage über das Hören der Fische. (Contributions

to the clarification of the question of the hearing of fish.) *Zool. Jb., Abt. 3*, 1936, **56**, 553.—P. L. Krieger (Leipzig).

5196. Vannas, M. *Über Heterophorie und Tiefenwahrnehmung.* (Concerning heterophoria and depth perception.) *Acta ophthalm., Kbh.*, 1935, **13**, n.p.—The experience of Finnish military flyers is discussed.—P. L. Krieger (Leipzig).

5197. Vogel, M. A. *Eyesight surveys.* *Hum. Factor, Lond.*, 1937, **11**, 394-398.—This summarizes surveys of the eye condition of employees in a number of organizations, and gives the results from correcting defective vision. 79.1% of 618 employees in one concern had visual defects; correction resulted in an increase of 10-40% in hourly earnings. Of 480 myopes among 7000 private patients, 38% were engaged in habitual close work. By installing an "eye room" in one factory, \$30,000 was saved in compensation cases in a 14-year period. 212 out of 612 employees in a watch manufacturing concern had defective vision. The need for occasional surveys of, and constant check on, visual conditions is apparent.—H. Moore (Mt. Holyoke).

5198. Waetzmann, E. *Über Symmetrie- und Erblichkeitsfragen am menschlichen Gehörorgan.* (Concerning questions of symmetry and heredity in the human auditory organ.) *Z. tech. Physik*, 1936, **17**, 549-553.—P. L. Krieger (Leipzig).

5199. Wald, G. *Area and visual threshold.* *J. gen. Physiol.*, 1938, **21**, 269-288.—"The variation of threshold with field area was measured in fields homogeneous in rod-cone composition. At 15° above the fovea an increase in field diameter from 1° to 5° reduces the threshold sevenfold, at 25° above the fovea tenfold. These changes are shown to follow qualitatively from simple statistical properties of the retinal mosaic. Analytic treatment leads to the expression $(A - n_1)^{kI} = C$, in which A = area, n_1 = constant threshold number of elements, I = threshold intensity, and k and C are constants. This equation describes the available data accurately and is the general form of previous empirical area-threshold formulae."—M. A. Rubin (Worcester State Hospital).

5200. Weil, F. *Über die kinematographische Reproduktion der Raumempfindung.* (The cinematographic reproduction of space perception.) *Veröff. Zent. Lab. Anilin photogr.*, 1935, **4**, 251-262.—P. L. Krieger (Leipzig).

5201. Wundrig, G. *Die Sehorgane der Mallophagen, nebst vergleichenden Untersuchungen an Liposceliden und Anopluren.* (The visual organs of bird lice, with comparative investigations on book lice and body lice.) *Zool. Jb., Abt. 2*, 1936/37, **62**, 45.—P. L. Krieger (Leipzig).

[See also abstracts 5097, 5122, 5247, 5265, 5274, 5322, 5340, 5476, 5499, 5514, 5516, 5424, 5607, 5621.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

5202. [Anon.] *Intelligence rating of the allergic child.* *J. Amer. med. Ass.*, 1937, **110**, 375ff.—Within the standards of statistical error, allergic children show neither any mental superiority nor any mental retardation when compared with non-allergic children of the same age group and environment.—(Courtesy *Child Developm. Abstr.*).

5203. Bierens de Haan, J. A. *Über einen "sprechenden" Hund in Amsterdam, sowie einige Bemerkungen über solche Hunde im allgemeinen.* (Concerning a "talking" dog in Amsterdam, and some remarks on such dogs in general.) *Zool. Anz.*, 1936, **114**, 57-63.—In regard to this new case of a dog capable of pronouncing a few words, the author repeats observations already made in this connection, and still very applicable. In short, it is simply a question of acoustic imitation, extremely rare in mammals, although met more frequently in birds. There is no true language, no understanding by the animal of the significance of the words uttered. Further, as Kaiser has demonstrated through phonetic analysis, the sounds by which certain words are recognized are far from constituting a satisfactory vocal reproduction, particularly in regard to articulation.—(Courtesy *Année psychol.*).

5204. Braatöy, T. *Measurement of intelligence.* *J. nerv. ment. Dis.*, 1938, **87**, 265-282.—Intelligence measurement and intelligence tests in the current parlance of the day involve an assemblage of tests administered under the assumption that there exist determinable graduated differences in a number of so-called mental functions. They have been designed on the same principles as any other biological standard, and therefore have no meaning except in relation to the stated standard assumptions.—C. R. Atwell (Boston Psychopathic Hospital).

5205. Bunch, M. E., & Magdsick, W. K. *A study of electric shock motivation in maze learning.* *J. comp. Psychol.*, 1938, **25**, 496-506.—126 white rats were taught a 14-unit multiple-T maze, one trial per day, to a criterion of 3 errorless runs under conditions of hunger, hunger with shocks for blind alleys, escape from shock, escape from shock plus hunger, escape from shock with practice trials massed instead of one per day. Escape from shock is more effective than hunger in terms of time and retracing errors, and combination of the two is greater than either alone in terms of trials but not in other measures. Massing trials results in an increase in number of trials but reduction in time and error scores. When shock is used to punish errors increased efficiency of learning is found.—F. A. Mote, Jr. (Brown).

5206. Bunch, M. E., & McCraven, V. G. *The temporal course of transfer in the learning of memory material.* *J. comp. Psychol.*, 1938, **25**, 481-496.—100 undergraduates divided into five equal

groups were tested to determine the amount of transfer from the learning of one paired-associate nonsense-syllable problem to the learning of a second similar task occurring when the two are learned in immediate succession as compared with the amount that occurs when the second is learned at varying time intervals after the first. In a second experiment more subjects were used and a second problem was learned which was composed of different syllables from those used in the second task in the first experiment, but other conditions were the same. The amount of transfer varied slightly from interval to interval, but showed no tendency to vary uniformly in one direction. The transfer-time relationship was the same in both experiments, and in both there was a greater transfer in terms of error scores than in trials.—*F. A. Mote, Jr. (Brown)*.

5207. Cason, H. The influence of attitude and distraction. *J. exp. Psychol.*, 1938, 22, 532-546.—A study was made of the influence of several common distractions on cumulative addition, paired-associates learning, arithmetical problem solving, and two recreational reading activities. The general effect of distractions was to make the conditions more difficult to work under and to lower efficiency. The subjects already had a set to work, and distractions caused them to exert greater effort. In spite of the greater effort, efficiency during distractions was lower than during the quiet periods. The subjects' grades for effort exerted, difficulty of the working conditions, and the extent to which they were accustomed to the distractions were of definite value in themselves and in the interpretation of other results.—*H. Cason (Wisconsin)*.

5208. Cattell, R. B. A study of the national reserves of intelligence. *Hum. Fact., Lond.*, 1937, 11, 127-137.—The author studied the relationship between the number of children in a family and the intelligence level of both parents and children, taking both rural and urban populations. He found that in both populations the better endowed parents had fewer children than the parents of average or defective intelligence. He believes that thirty years from now there will be an increase of 24% in the number of mentally deficient individuals and a reduction of approximately 35% in the number of superior individuals if conditions remain the same as at present. As a result vocational selection, delinquency, education, etc., will offer increasingly difficult problems.—*A. B. Hunter (Brown)*.

5209. Cattell, R. B., & Willson, J. L. Contributions concerning mental inheritance. I. Of intelligence. *Brit. J. educ. Psychol.*, 1938, 8, 129-149.—For the main intrafamilial relations in a population under the conditions and possessing the variability of the present-day British population correlations of intelligence were found as follows: mid-parent vs. mid-child $.91 \pm .028$, one parent vs. one child $.84 \pm .036$, mother vs. father $.81 \pm .039$, and pairs of siblings $.77 \pm .031$. These values are higher than those in previous researches, but have resulted after

allowances for selection, for age change of intelligence score in parents, for attenuation, and for other disturbing factors. A regression equation is given for estimating mid-child IQ from that of mid-parent. The conclusion is reached that nine-tenths of the children's and parents' intelligence is common, while four-fifths of the variability of intelligence between families is due to hereditary factors.—*K. M. Cowdery (Stanford)*.

5210. Cooper, J. B. The effect upon performance of introduction and removal of a delay within the maze. *J. comp. Psychol.*, 1938, 25, 457-462.—A block introduced within the maze increases and its removal decreases the time consumed in running that part of the maze prior to the block. Introduction of the block resulted in not more errors but hesitancy, head movements, jerky movements, etc.—*F. A. Mote, Jr. (Brown)*.

5211. Dorosz, J. Le problème de l'Einfühlung. (The problem of empathy.) *Arch. Psychol., Genève*, 1937, 26, 198-203.—We conceive of objects only in relation to space, time, and number, that is, in the framework of our own life. But space, time, and number are not objects; they are the products of our mental activity. Inversely, our life itself is made manifest in objects. Thus we can never perceive any expression of our life except in the real world. This is the basis of empathy as investigated by T. Lipps and G. F. Lipps, who found that it presents the same characteristics as does judgment. We engage in empathy each moment of our life by an immediate, naive, and instinctive activity. Empathy and creative activity are the same thing, the only difference being one of degree. Both are found in creation and in contemplation, in the artist as well as in the spectator. A work of art is a product of two kinds of activity: (1) intuitive, instinctive, and creative, and (2) critical and formal. Empathy represents the first form, while the second concerns the intellect. Criticism must recognize the superiority of the creative activity, for one can create without criticizing, but one cannot criticize something which has not yet been created.—*M. R. Lambercier (Geneva)*.

5212. Fervers, E. Zur Logik und Psychologie der Entdeckung. (Concerning the logic and psychology of discovery.) *Z. angew. Psychol.*, 1938, 54, 40-61.—The author analyzes the logic (step by step) and psychological processes involved in several of the medical discoveries recorded by Paul de Kruif in his "Men Against Death."—*G. F. J. Lehner (Vermont)*.

5213. Forlano, G., & Brunschwig, L. Perseveration in relation to reminiscence and recall. *Brit. J. educ. Psychol.*, 1938, 8, 178-187.—To 156 children aged 8 to 14, mean IQ 116, were given immediate and delayed recall tests after limited learning of poetry material, also the Maller-Elkin attention test to measure individual differences in perseveration. Approximately 40% showed a higher score on the delayed than on the immediate retention test. Low but consistently positive correlations were found

between improvement on the delayed retention test and perseverative tendency.—*K. M. Cowdery* (Stanford).

5214. **Freeman, F. N.** How adults learn. In *Wilson, L. R., The Role of the Library in Adult Education*. Chicago: Univ. Chicago Press, 1937. Pp. 321. Pp. 191-211.—A review of the scientific evidence on the intellectual ability and capacity for learning of adults. The conclusion arrived at is that the chief obstacle to the extension of education of adults lies not in reduced ability so much as in the decline of interest and the general circumstances of their lives.—*F. N. Freeman* (Chicago).

5215. **Jones, H. E., & Yoshioka, J. G.** Differential errors in children's learning on a stylus maze. *J. comp. Psychol.*, 1938, 25, 463-480.—Two stylus slot mazes were learned by 151 children under conditions varying as to procedure, order, and pattern. Goal impetus, drift tendency, local forward momentum, anticipatory errors, and centralizing tendency were analyzed with respect to their influence on differential errors. Comparison of test orders demonstrated a transfer effect, but no effect was found from supplementary light or buzzer stimulation signalling entrance into blind alleys.—*F. A. Mote, Jr.* (Brown).

5216. **McGeoch, J. A., & Sisson, E. D.** Studies in retroactive inhibition. XI. The influence of the relative serial positions of interpolated synonyms in twenty-item lists. *J. exp. Psychol.*, 1938, 22, 547-554.—The influence of the relative serial positions of interpolated synonyms is a function of the number of items in the lists. When length of list increases from 10 to 20, amount of inhibition diminishes as disparity of relative serial position increases.—*J. A. McGeoch* (Wesleyan).

5217. **Nestor, I. M.** Diagnosticarea inteligentiei. (The estimation of intelligence.) Bucuresti: Societatea Romana de Cercetari Psihologice, 1937. Pp. 66.—Reprint of *Anal. Psihol.*, 1936, 3, 164-229 (see XII: 2979).—*R. R. Willoughby* (Brown).

5218. **Pilgram, J.** Zur Theorie der Aufmerksamkeit. (The theory of attention.) Würzburg: Mayr, 1938. Pp. 43.—*R. R. Willoughby* (Brown).

5219. **Plate, L.** Hypothese einer variablen Erbkraft bei polyallelen Genen und bei Radikalen, ein Weg zur Erklärung der Vererbung erworbener Eigenschaften. (Hypothesis of variable hereditary strength in polyallelic genes and radicals; a way to explain the heredity of acquired characteristics.) *Acta biother.*, 1936, 2, 93-122.—*P. L. Krieger* (Leipzig).

5220. **Pribytkova, G. N.** [On the influence of various doses of adrenalin on higher nervous activity.] *Bull. Biol. Méd. exp., U. R. S. S.*, 1936, 2, 110-113.—A 0.1 mg. dose of adrenalin causes an increase in intensity in the conditioned reflexes in the dog; a larger dose causes a decrease. In a dog partially sympathectomized by bilateral ablation of the upper cervical ganglia, the influence of adrenalin was diminished.—(Courtesy *Année psychol.*).

5221. **Pribytkova, G. N.** [On the influence of various doses of thyroxin on higher nervous activity.] *Bull. Biol. Méd. exp., U. R. S. S.*, 1936, 2, 114-116.—In weak doses thyroxin increases the excitability of the cortex (maximum effect on the 4th day); in strong doses it diminishes the excitability for several days.—(Courtesy *Année psychol.*).

5222. **Putnam, T. J.** Mentality of infants relieved of hydrocephalus by coagulation of choroid plexus. *Amer. J. Dis. Child.*, 1938, 55, 990-999.—*W. J. Brogden* (Johns Hopkins).

5223. **Sellers, C. W.** The decline of wits; a biological problem and a preliminary program. Detroit: Author, 1938. Pp. 76. \$0.50.—*R. R. Willoughby* (Brown).

5224. **Sisson, E. D.** Retroactive inhibition: the influence of degree of associative value of original and interpolated lists. *J. exp. Psychol.*, 1938, 22, 573-580.—Four conditions were studied: (1) learning and recall of a list of nonsense syllables of 100% associative value, with interpolation of a second list of the same kind; (2) learning and recall of a list of 0% associative value, with interpolation of a second list of the same kind; (3) learning and recall of a 100% list, with interpolation of a 0% list; (4) learning and recall of a 0% list, with interpolation of a 100% list. Degree of learning of the various lists was controlled. In terms of both recall and relearning scores, interpolation of a list of different associative value resulted in less retroaction than did interpolation of a list of the same associative value. A possible explanation is suggested in terms of isolation of the memorial substrates of the two lists.—*E. D. Sisson* (Wesleyan).

5225. **Wolff, H. G.** Die bedingte Reaktion. (The conditioned reaction.) In *Bumke & Foerster, Handbuch der Neurologie*, 1937, 2, 320-358.—A neutral stimulus becomes conditioned when associated with a fundamental biological drive and when it precedes and overlaps a second, adequate stimulus which elicits a reflex. In addition, the afferent nerve tracts must function and the central nervous system must have attained a certain level of development. The effect of a conditioned stimulus cannot be interpreted merely as an expression of cortical function, for it appears in less developed animals (octopus). Conditioned reflexes can be obtained in fishes, amphibia, and birds, using nutrition and pain as unconditioned stimuli and changes in temperature and light as conditioned stimuli. Conditioned responses occur before the development of the neopallium, in birds through the function of the corpus striatum. A bell and a clucking sound were most effective in two dogs; the metronome came next, and the flashlight was least effective. The general behavior of the animals paralleled somewhat the salivary reaction. Pavlov's method has illustrated in individual cases that from the psychological point of view man and higher vertebrates are similar.—*P. L. Krieger* (Leipzig).

[See also abstracts 5121, 5143, 5241, 5267, 5281, 5343, 5350, 5476, 5577, 5601, 5611.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

5226. Agduhr, E. Fortgesetzte Untersuchungen über die Bedeutung sexueller Funktionen für die Widerstandskraft des Organismus gegen schädliche Stoffe. (Continued investigations on the significance of sexual functions for the resistance of the organism to harmful substances.) *Upsala Läk. Fören. Förh.*, 1937, 42, 463-470.—Following earlier experiments (see the author's *Ergosterin erhöht die Fruchtbarkeit bei den Versuchstieren, und die normalen sexuellen Funktionen steigern ihre Widerstandskraft gegenüber der Toxizität des Ergosterins*, *Z. mikr.-anat. Forsch.*, 1934, 36, 576-588), the author reports the results of experiments with doses of activated ergosterin for 80 mice over a period of 208 days. The method, dosage, and apparatus are described in detail. The animals were divided into groups, one with opportunity for sexual function and the other without. After the 208 days the surviving animals were killed and examined. The isolated males lived on the average 78.5 ± 11 days, those with females 185.35 ± 8.9 days. The isolated females lived on the average 167.25 ± 9.8 days. Those with males 196.55 ± 5.7 days. Inoculating isolated animals with sexual hormones increases resistance to toxic substances.—M. L. Reymert (Mooseheart Laboratory for Child Research).

5227. Altenburger, H. Elektrodiagnostik einschliesslich Chronaxie und Aktionsströmen. (Electrodiagnosis, including chronaxy and action currents.) In Bumke & Foerster, *Handbuch der Neurologie*, 1937, 3, 747-1086.—Electrophysiology shows that no definite plan of the completion of muscular movements can be developed. Different conditions influence these performances, which depend on the way in which each muscle is activated, the number of impulses, and their sequence and co-ordination. A normal electromyogram cannot be constructed in the same manner as an electrocardiogram. The same applies to the co-ordination of different groups of muscles.—P. L. Krieger (Leipzig).

5228. Antipoff, H., & Assunção, Z. Contribution typologique à l'étude de l'ergographie. (Typological contribution to the study of ergography.) *Arch. Psychol., Genève*, 1937, 26, 146-180.—Using the Zimmermann ergograph, the author tested 100 Brazilian women school teachers, 18 to 40 years of age. Seven types of ergograms were found, which were consistent in 72% of the cases. The most frequent was the convex type, although the types varied according to the weights used. A further study on consistency was carried out on 21 subjects (4 to 17 repetitions), the results indicating that the final section of the ergogram is more consistent than the initial or the median section. The most constant element was the fatigue coefficient, while the quantitative elements generally showed little consistency. A certain relationship was found between the abrupt and interrupted ergographic forms and a tendency to impulsiveness and independence as shown by a

questionnaire. For 6 subjects, trained previously in the use of the ergograph, work carried on simultaneously (as previously studied by Claparède), whether muscular or mental, effected a considerable increase in all the characteristics of the ergogram. The more interesting the simultaneous work, the longer the ergographic activity could be maintained. A table of percentiles is given for the entire group, covering the number of liftings, the total heights, the work done in kilogram-meters, and the fatigue coefficients.—M. R. Lambercier (Geneva).

5229. Bahnsen, P., & Thesleff, H. Mecodrin's (3-fenylisopropylaminsulfat) indvirkning paa reaktionshastighed og haandsikkerhed. (The influence of mecodrin (β -phenylisopropylamine sulphate) on speed of reaction and steadiness of the hand.) *Ugeskr. Laeg.*, 1938, 100, 669-673.—Preliminary to a more extensive investigation, two men and five women, all office employees, were tested for a period of 8 days twice each day on 66 choice reactions. Only the last 6 days were taken into account. On alternate days they were given 10-20 mg. mecodrin tablets and tablets of a neutral substance made to resemble the mecodrin. The mecodrin had no influence on the speed of choice reaction. Following a similar method and procedure, a steadiness test was given also, with a similar result. Pictures of apparatus used.—M. L. Reymert (Mooseheart Laboratory for Child Research).

5230. Behn, S., & Fervers, C. Die Suggestion der Maschine und der eckig-sehnige Konstitutionstypus. (The suggestion of the machine and the angular-sinewy constitutional type.) *Z. Rassenk.*, 1938, 7, 217-234.—Following Weissenfeld, the authors add a fourth type, the soft-athletic, to Kretschmer's scheme of constitutions. This type is angular and wiry, with scanty fat and muscle, but the muscles are tense. Activated predominantly from the mid-brain, it works best under the stimulus of the machine, and with less injury, under conditions in which other types give out.—P. L. Krieger (Leipzig).

5231. Bender, M. B., & Fulton, J. F. Functional recovery in ocular muscles of a chimpanzee. *J. Neurophysiol.*, 1938, 1, 144-151.—M. A. Rubin (Worcester State Hospital).

5232. Bijou, S. W. Laterality as a clinical problem. *Delaware St. med. J.*, 1938, 10.—The author believes that central or potential laterality is normally distributed when the incidence of extreme right-sidedness is plotted on one side of the X axis and the incidence of extreme left-sidedness on the other, with all possible variations between.—M. Keller (Butler Hospital).

5233. Blair, H. A. The excitability of frog muscle with particular reference to its latent addition. *J. gen. Physiol.*, 1938, 21, 557-574.—M. A. Rubin (Worcester State Hospital).

5234. Bradford, F. K. The auriculo-genital reflex in cats. *Quart. J. exp. Physiol.*, 1938, 27, 271-279.—A reflex is described which can be ob-

tained in about 90% of cats by a definite type of manual stimulation of the external ear. The response consists of contraction of the subcutaneous muscle about the genital organs in both male and female animals. The neural pathway is given. The response is strictly a crossed one. It is independent of emotional state or of the estral cycle.—*L. Carmichael* (Tufts).

5235. **Brown, C. W., & Searle, L. V.** The effect of variation in the dose of benzedrine sulphate on the activity of white rats. *J. exp. Psychol.*, 1938, 22, 555-563.—"The effect of variation in dosage of subcutaneous injections of benzedrine sulphate was measured in 15 white rats by the revolving-cage method. Doses of $1\frac{1}{2}$ mg./kg., 3 mg./kg and $4\frac{1}{2}$ mg./kg. were studied. All rats received each dose twice. The 3 mg./kg. dose produced the greatest increase in activity in terms of both absolute number of revolutions of the cages and the percent increase in activity above the resting activity level. Benzedrine has a greater effect on inactive rats than upon very active animals. The effect of benzedrine is not conditioned upon the weight of the animal."—*H. W. Karn* (Pittsburgh).

5236. **Brüel, O.** Lidt om konstitutionstyper. (Concerning constitutional types.) *Ugeskr. Laeg.*, 1938, 100, 383-392.—A general review of Kretschmer and others on constitutional types, with pictorial reproductions of types from Kretschmer. It is emphasized that a knowledge of typology will prove to be of the greatest diagnostic and prognostic value, and also of great social importance.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5237. **Bünning, E.** Die Entstehung der Variationsbewegungen bei den Pflanzen. (The origin of variation movements in plants.) *Ergebn. Biol.*, 1936, 13, 235-347.—*P. L. Krieger* (Leipzig).

5238. **Chang, T. T.** Alter und Höhenfestigkeit im Tierversuch. (Animal experiments on the relation of age to capacity for high flights.) *Luftfahrtmedizin*, 1938, 2, 239-242.—Using altitude cramps as an indication of the critical height, Chang studied their relation to age in mice. Four ages were chosen, 1, 3, and 6-12 months, and about 2 years. 50 animals, equally divided as to sex, were investigated at each age. With a speed of ascent of 500 meters per minute, the cramp thresholds for the 4 groups were respectively 12400, 11900, 12200, and 11800 meters altitude. The optimum age is thus 1 year. The vegetative nerve centers of 3-months-old mice appear to be as yet insusceptible to such injuries. The capacity of very young mice to endure high altitudes depends either on the slight susceptibility of the immature nerve centers or perhaps also on the peculiarities of the hemoglobin.—*P. L. Krieger* (Leipzig).

5239. **Cörmann, R.** Die Wirkung von Schwingungen. (The effect of oscillation.) *Luftfahrtmedizin*, 1938, 2, 295-301.—9 persons between 20 and 30 years of age were shaken for 2 hours on an oscillating table. The blood pressure, pulse, reaction time, patellar reflex, and visual acuity or sensations

of brightness were taken every 20 minutes. The patellar reflex was strongly influenced, and completely suppressed after sufficient shaking. Loss of other reflexes was not observed. After a certain amount of swinging vision was affected. The first moments were the most unpleasant. In time the subject appeared to get used to it, and continuous experiments of 8 hours with swings much wider than those assumed to be harmful left no trace of injury. With extreme oscillations there was a tendency to loss of tone in the entire musculature, so that the subject "flapped together." Headache occurred only occasionally.—*P. L. Krieger* (Leipzig).

5240. **Darling, F. F.** A herd of red deer; a study in animal behavior. New York: Oxford Univ. Press, 1937. Pp. x + 215. \$5.50.—(Not seen).

5241. **Dybowski, M.** The investigation of energetic resolutions. *Kwart. psychol.*, 1938, 10, 9-27.—A questionnaire study of modes of making resolutions, the effort involved, the recollection of resolutions made, and the conditions under which resolutions are executed.—*T. M. Abel* (Trade Extension Classes, New York City).

5242. **Girndt, O., & Huesgen, R.** Zur Frage der Abhängigkeit der Morphinempfindlichkeit vom Lebensalter. (The dependence of sensitiveness to morphine on age.) *Mschr. Kinderheilk.*, 1937, 71, 153-168.—Young rabbits die after doses of 200-250 mg. per kg. weight, given subcutaneously in 4% solution. Adult animals die only after doses of 400-500 mg. per kg. Exactly the same quantitative difference is shown in the effect on the respiratory rate. The authors do not draw any conclusions as to applications to human beings.—*P. L. Krieger* (Leipzig).

5243. **Haslerud, G. M.** The effect of movement of stimulus objects upon avoidance reactions in chimpanzees. *J. comp. Psychol.*, 1938, 25, 507-528.—12 chimpanzees, 5 adult and 7 child, were tested by placing a battery of animate objects (tortoise, snake, alligator, fire, and ball) and a battery of inanimate objects paired according to size with the animate ones close to food for which the animals had to reach. The fear pattern was similar in adults and children, and appeared and disappeared quickly. Practically every new object brought about reactions varying from caution to overt fear; adaptation occurred more quickly in children than in adults. The fear-inducing value of an object differed among the subjects and was not clearly related to age.—*F. A. Mole, Jr.* (Brown).

5244. **Kleinhoonte, A.** Die Tagesperiodik in der Pflanzenwelt. (Diurnal variations in the plant world.) *Dtsch. med. Wschr.*, 1938, 64, 739-742.—A condensed review of the studies of others on diurnal periodicity among plants in assimilation, breathing, cell division, longitudinal growth, bleeding, transpiration, stomata opening, osmotic pressure, permeability, changes in turgor, and their causes.—*P. L. Krieger* (Leipzig).

5245. **Klemm, O.** Der Kugelstoss—Bericht über eine Untersuchung A. Vogels. (The shot-put—a

report of an investigation by A. Vogel.) *Z. angew. Psychol.*, 1938, 54, 81-91.—The author presents a discussion of Vogel's technique for recording the various movements involved in putting the shot. The planes of movement of such parts of the body as the knee, forearm, hand, shoulder, and hips are graphically given, with their time relations.—G. F. J. Lehner (Vermont).

5246. Kumpf, K. *Bremsweg und Reaktionszeit.* (Braking and reaction time.) Schwetzingen: Stemmledruck, 1937. Pp. 18.—R. R. Willoughby (Brown).

5247. Mast, S. O., & Fennell, R. A. The relation between temperature, salts, hydrogen ion concentration and frequency of ingestion of food by *Amoeba*. *Physiol. Zool.*, 1938, 11, 1-18.—*Amoebae* were fed *Chilomonas paramecium* in a controlled environment. The number ingested was found to be inversely proportional to the amount of food in the animal, and was maximal at 25° C. in a medium of pH 6.5-7.0. The effects on feeding of concentrations of sodium chloride, calcium chloride, and magnesium chloride were measured.—O. W. Richards (Spencer Lens Company).

5248. Matschulan, G. *Abhängigkeit von Morphingewöhnung und -entwöhnung von der Nahrung.* (Dependence of morphine habituation and disuse on food.) *Arch. exp. Path. Pharmacol.*, 1937, 187, 230-233.—When guinea pigs are fed on acid food (oats), morphine habituation is hastened and cure delayed. With alkaline food (turnips), the reverse is the case.—P. L. Krieger (Leipzig).

5249. McGraw, M. B. Quantitative behavior data and the longitudinal method. The Moro reflex. *Hum. Biol.*, 1937, 9, 542-548.—R. R. Willoughby (Brown).

5250. Miller, N. E., Hubert, G., & Hamilton, J. B. Mental and behavioral changes following male hormone treatment of adult castration, hypogonadism, and psychic impotence. *Proc. Soc. exp. Biol.*, N. Y., 1938, 38, 538-540.—Control injections of peanut oil were administered before and during treatment of 6 cases of sexual debility by subcutaneous injection of testosterone propionate 3 times weekly to once daily (dose 20 mg. dissolved in 1 cc. peanut oil). Two were adult castrates, 2 were cases of hypogonadism, and 2 of psychic impotence. During treatment the castrates showed normal sexual responses; the hypogonadals were less clear cut, though one achieved a degree of improvement. One psychogenic was restored to low normal sexual capacity, the other to complete normality. Changes in sexual function were accompanied by changes in mental attitude in all patients.—H. Peak (Randolph-Macon).

5251. Mishchenko, M. N. *O sootnoshenii mezhu fizicheskoi siloi razdrazhitel'nykh i velichenoi reaktsii u cheloveka.* (Concerning the relation between the physical energy of stimuli and the intensity of response in man.) *Trud. tsentral. psikhonevrol. inst.*, 1938, 10, 64-90.—40 normal, healthy adults, 20-30 years old, were instructed to press a button while visual and auditory stimuli of

varying intensities were presented. A recording apparatus indicated the intensity of the response. In 78% of the S's the responses followed Pavlov's principle that the greater the energy of the stimulus, the greater is its effect. Latent periods were shorter as the strength of stimuli increased. The deviations from the principle in 22% of the cases were held to be due in some cases to "constitutional inadequacy" of the nervous system, and in others to temporary conditions such as fatigue and sleepiness. Sample protocols are presented. Summary in French.—L. J. Stone (Sarah Lawrence).

5252. Montpelier, G. de. *Note sur l'accélération dans les mouvements volontaires de la main.* (Note on acceleration in voluntary hand movements.) *Arch. Psychol., Genève*, 1937, 26, 181-197.—After describing the kinesigraphic and cinematographic methods used in these experiments, the author lists tables of data on acceleration as a function of time. Results were obtained for 6 subjects for rapid and slow movements (the moving of objects from one point to another). Characteristics of this acceleration were found to be as follows: (1) asymmetry between zones of positive and negative acceleration which varied with the nature of the movement; (2) continual variation in acceleration (the speed was not constant at any one point); (3) existence of a maximum acceleration, located usually in the first and last quarters of the movement; and (4) presence of variations in both positive and negative acceleration. The acceleration might reach two or more maxima according to the speed of the movements, the intensity of the acting force varying discontinuously. These experiments confirm in general the work of McNeill, Isserlin, Peters and Wenborne, Loeb and Koranyi, and Wachholder, with the exception of the data covering the first point.—M. R. Lambercier (Geneva).

5253. Müller, A. *Individualität und Fortpflanzung als Polarisationerscheinungen.* (Individuality and reproduction as manifestations of polarization.) Jena: Fischer, 1938. Pp. 66. RM 3.00.—The author considers the passage cephalad of the sense organs and caudad of the reproductive glands of mammals as the manifestation of the contrast between the senses and reproduction (Kielmeyer, Schelling). He discusses the law of the passage towards the cephalic pole (J. Steiner), the principle of physiological dominance and subordination (v. Monakow), and the specific psychic valence (v. Weizsäcker).—P. L. Krieger (Leipzig).

5254. Nielsen, M., & Hansen, O. *Maximale körperliche Arbeit bei Atmung O₂-reicher Luft.* (Maximum physical performance in breathing air rich in O₂.) *Skand. Arch. Physiol.*, 1937, 76, 37-59.—P. L. Krieger (Leipzig).

5255. Porkielje, A. F. J. *Ein bemerkenswerter Grenzfall von Polygamie bzw. accessorischer Promiskuität beim Höckerschwan, zugleich ein Beitrag zur Ethologie bzw. Psychologie von *Cygnus olor* Gur.* (A remarkable borderline case of polygamy—accessory promiscuity—in a swan, and contribution

to the ethology and psychology of *Cygnus olor*.) *J. Orn.*, 1936, 84, 140-158.—This is a detailed account, interspersed with speculations on instincts and tendencies, of the case of a swan which, in contrast to the usual habits of his species, had an accessory female, whose eggs were laid in a nest close to the "legitimate" nest.—(Courtesy *Année psychol.*).

5256. Porter, E. L., Blair, R. K., & Bohnfalk, S. W. Facilitation of reflex action in the spinal cat following asphyxia of the cord from cyanide and increased intraspinal pressure. *J. Neurophysiol.*, 1938, 1, 166-175.—Slight asphyxia, effected either by intravenous injection of sodium cyanide or by increased intraspinal pressure, causes an increase in reflex contraction of the cat's tenuissimus muscle. The enhancement of the reflex contraction is due to facilitation at the synapses, bringing new motoneurons into activity.—*M. A. Rubin* (Worcester State Hospital).

5257. Qual, A. W sprawie fizjologicznej teorii ucruc. (On the physiological theory of emotions.) *Kwart. psychol.*, 1938, 10, 28-58.—A discussion of the James-Lange theory of emotion, with particular emphasis on and criticism of the work of Cannon.—*T. M. Abel* (Trade Extension Classes, New York City).

5258. Rabaud, E. Préhensilité et moyens de préhension chez les vertébrés. (Prehensile ability and the means of prehension in vertebrates.) *Mém. Mus. Hist. nat. Belg.*, 1936, 3, 43-52.—Citing illustrations from the animal kingdom, the author considers the question of anatomical adaptation in prehension. The prehensile ability is shown to be independent of anatomical means, which in no case have an adaptive character. The idea that the hands of man have resulted from an adaptation seems to the writer untenable. Functional adaptation is not accompanied by morphological adaptation. "The reflexes of prehension do not correspond to specialized organs: the animal employs that which he possesses and uses it according to the possibilities of his nervous system. In no instance does there exist a genetic relation between the fact of seizing and the means of prehension."—(Courtesy *Année psychol.*).

5259. Ranke, O. F. Beschleunigungswirkung. (The effect of acceleration.) *Luftfahrtmedizin*, 1938, 2, 243-258.—Until recently the limit of endurable acceleration was considered to be 4-6 g, depending on courage and willingness to take into consideration dimness of vision and reduction of sensory and cerebral activity for short periods. According to present opinion, however, 7-12 g can be borne for more than 10 seconds without other effects than harmless cutaneous hemorrhages. Respiratory difficulties are very troublesome only above 8 g, but the brain and cord are not endangered. A warning headache is first felt at 15-17 g.—*P. L. Krieger* (Leipzig).

5260. Rydin, H., & Verney, E. B. The inhibition of water-diuresis by emotional stress and by muscular exercise. *Quart. J. exp. Physiol.*, 1938, 27, 243-274.—That emotional stress may be the

occasion for a fall in the rate of urine secretion has long been recognized. The present experiments on dogs show that after exercise of four to five minutes' duration, the inhibition of water-diuresis begins in about two minutes. This is thought to be due to the emotional accompaniment of the exercise. The present experiments support the view that this inhibition is due to some humoral agent conducted to the kidney and that this agent is not adrenalin. Further experiments are given which lead to a discussion of the results in terms of the theory of pituitary control of water secretion.—*L. Carmichael* (Tufts).

5261. Steiniger, F. Die biologische Bedeutung der "tierischen Hypnose" bei Vögeln. (The biological significance of "animal hypnosis" in birds.) *J. Orn.*, 1937, 85, 593.—*P. L. Krieger* (Leipzig).

5262. Stokvis, B., & Naerebout, A. Experimenteel onderzoek over den invloed van muziek (opgevat als "tongestalt") op den ononderbroken geregistreerden bloeddruk, den psychogalvanischen reflex en de polsfrequentie. (An experimental study of the influence of music, conceived as a "Tongestalt," on continuously registered blood pressure, the psychogalvanic reflex, and pulse frequency.) *Ned. Tijdschr. Psychol.*, 1938, 6, 58-93.—A comparison was made between introspectively reported reactions and vegetative reactions (blood pressure, psychogalvanic reflex, pulse frequency) of persons listening to six musical selections representing various moods. The two types of data tended to agree to a considerable extent. There was close agreement between blood pressure and pulse frequency, but less between either of these two and the psychogalvanic reflex. A comparison of the subjects' temperamental qualities, determined according to Heymans' typology, showed that this system also applies to the vegetative reactions as determined by blood pressure, plethysmographic fluctuations, pulse rate, and psychogalvanic reflex. Bibliography of 80 titles.—*H. Beaumont* (Kentucky).

5263. Stone, C. P. Activation of impotent male rats by injections of testosterone propionate. *J. comp. Psychol.*, 1938, 25, 445-450.—12 male rats whose copulatory activity was nil during a series of preliminary tests in a study of sex drive were given subcutaneous injections of testosterone propionate. Positive results were achieved, some beginning to copulate within two days after the injections. The frequency of copulation in these animals was less than normal.—*F. A. Mole, Jr.* (Brown).

5264. Weinbach, A. P. Some physiological phenomena fitted to growth equations. I. Moro reflex. *Hum. Biol.*, 1937, 9, 549-555.—*R. R. Willoughby* (Brown).

5265. Welsh, J. H. Diurnal rhythms. *Quart. Rev. Biol.*, 1938, 13, 123-139.—Diurnal rhythms, 24-hour cycles, are summarized from the literature under the topics: light production, eye-pigment movements and rods and cones, color changes, general activity, and metabolic rates. The rhythm

may persist for long periods in the absence of change in the external environment. Light production shows this well. The phases of the cycle may be changed by reversed lighting, artificial days of other than 24 hours, or constant illumination, but as long as the animal is left intact there is a tendency to return to the 24-hour cycle when placed again in total darkness. Endocrine secretion plays a fundamental role in color change and eye-pigment migration, but there is no convincing evidence of a cycle of secretory function. Other functions are apparently regulated by the nervous system. No general explanation is possible from the incomplete experimental data now available.—*O. W. Richards* (Spencer Lens Company).

5266. **Zeiss, E.** *Das Augenzittern der Bergleute.* (Miners' nystagmus.) Leipzig: Barth, 1936. Pp. 120. RM. 7.—The prevalence of nystagmus in thousands of miners has raised an economic and socio-hygienic problem. The possible causes of this affliction, its treatment, preventive measures, and unsolved problems are considered by the author. The book contains an introduction by M. Bartels, and 16 illustrations.—*G. F. J. Lehner* (Vermont).

5267. **Zilian, E.** *Ergebnisse einer psychologischen Untersuchung an erbgleichen und erbungleichen Zwillingen.* (Results of a psychological investigation of identical and fraternal twins.) *Beih. Z. angew. Psychol.*, 1938, 79, 42-50.—Subtitle: A contribution to psychological anthropology. 22 pairs of identical twins and 18 pairs of fraternal twins were given various tests (e.g. with pictures, drawings, reaction-time measurements, etc.) to measure "imaginal" and motor factors. Results indicate less variability for the identical twins for both groups of factors tested.—*G. F. J. Lehner* (Vermont).

[See also abstracts 5119, 5128, 5131, 5141, 5149, 5192, 5367, 5384, 5420, 5495, 5521, 5536, 5588, 5589.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

5268. **Bálint, M.** *Eros and Aphrodite.* *Int. J. Psycho-Anal.*, 1938, 19, 199-213.—General discussion is given of fore-pleasure and end-pleasure, and their differences are summarized in tabular form. This is followed by the development of the question, "Has the function of end-pleasure been evolved from fore-pleasure, or has it developed quite separately?" The author concludes that "the difference between fore-pleasure and end-pleasure is much more fundamental than has hitherto been supposed. The function of fore-pleasure is comparatively simple and it seems to be a primal attribute of living beings. The function of end-pleasure, on the contrary, is a new acquisition in the history of the race, and so complicated that each individual has to learn it afresh. It comprises two opposite tendencies, and the integration of the two constitutes an orgasm. This may be called an accomplishment, and depends upon the ability to tolerate a degree of excitation

which is all but traumatic."—*M. H. Erickson* (Eloise Hospital).

5269. **Bartemeier, L. H.** *A psychoanalytic study of a case of chronic exudative dermatitis.* *Psychoanal. Quart.*, 1938, 7, 216-231.—A 25-year-old senior dental student began analysis because of a chronic circular, itching, exudative dermatitis on the dorsum of his right hand, which appeared and disappeared in certain relationships to his work. Analysis disclosed that the dermatitis constituted a protection against castration anxiety, a form of restitution for his own castrating tendencies, permission for masturbatory gratification, and the gratification of partial impulses including voyeurism, exhibitionism, sadism, and masochism. The lesion disappeared when analysis precluded its use as a protective measure against castration anxiety.—*M. H. Erickson* (Eloise Hospital).

5270. **Benedek, T.** *Adaptation to reality in early infancy.* *Psychoanal. Quart.*, 1938, 7, 200-214.—The psychology and the physiology of the newborn cannot be separated. There is an immaturity of the nervous system and a lack of development of inhibitions which make the motor excitability of the newborn and of early infancy greater than that of later life. There follows a review of current opinions and a discussion of the fashion and probable processes by which the newborn responds to instinctual needs and environmental stimuli. An effort is made to show the steps by which the patterns of response and narcissistic and libidinal cathexes develop in relationship to the care and attention received by the infant. Emphasis is placed upon the need for an analysis of the many and interdependent environmental factors affecting the infant for an understanding of the problem of providing the best environmental conditions for growth and development. A 26-item bibliography is appended.—*M. H. Erickson* (Eloise Hospital).

5271. **Bergler, E.** *Über einen ubiquitären Abwehrmechanismus des unbewussten Ichs: "ein sinnloses Wort verfolgt mich."* (On a ubiquitous defense mechanism of the unconscious ego: "a nonsense word pursues me.") *Arb. Psychiat. Inst. Sendai*, 1937, 6, 33-49.—A word, a name, a thought, or a melody sometimes comes as if accidentally to consciousness, and is regarded at first either indifferently or with astonishment. Gradually it comes to appear repeatedly, giving at last a painful feeling, a fear, or a horror. Such a nonsense object may have the character of an obsession. The author maintains that an unconscious super-ego reproach which is seized by the unconscious ego and is disguised underlies these phenomena, and accordingly it appears simply as a nonsense word to the conscious ego. Four cases of obsession are discussed from the standpoint of psychoanalysis.—*R. Kuroda* (Keijo).

5272. **Bergler, E.** *On the resistance situation: the patient is silent.* *Psychoanal. Rev.*, 1938, 25, 170-186.—Silence is usually ambivalent. On the positive side it may indicate fear of expressing sexual

fantasy concerning the physician, masochistic acting out of the situation of being overpowered or of the feeling of impotence (castration), a provocation of fantasied physical exhibition, or a desire not to be disturbed in fantasy. On the negative side silence may represent obstinacy and aggression. There is a special group of silent symptoms which represent anal mechanisms; in this group silence may merely mean that the patient is retaining his thoughts. The third type of silence is that associated with oral mechanisms, which may be either of the pseudo-debility type or an expression of oral obstinacy and aggression. Suggestions are made regarding the treatment of each of these types.—*L. S. Selling* (Recorder's Court, Detroit).

5273. **Bernfeld, S. Types of adolescence.** *Psychoanal. Quart.*, 1938, 7, 243-253.—A general discussion is offered of the various personality types and forms of behavior found among adolescents. The author offers a classification of adolescents into (1) the purely rebellious, (2) the purely compliant, (3) the mixed type. Since behavior in early adolescence may be more or less opposite to that of late adolescence, various combinations of this classification are necessary, and he discusses these combinations. In conclusion, emphasis is placed upon the need of a typology of adolescents that is both genotypic and combinatory in character.—*M. H. Erickson* (Eloise Hospital).

5274. **Erickson, M. H., & Erickson, E. M. The hypnotic induction of hallucinatory color vision followed by pseudo-negative after-images.** *J. exp. Psychol.*, 1938, 22, 581-588.—Of the five hypnotized subjects employed in this investigation, one failed completely to meet the test situation. The remaining four, in response to appropriate hypnotic suggestions, hallucinated as red, blue, green or yellow the alternate sheets of white paper exhibited to them and invariably described intervening white sheets as of the complementary color appropriate to the hallucinated color of the preceding sheet. Results obtained from control tests indicate clearly that the experimental findings derived directly from the procedure employed.—*H. W. Karn* (Pittsburgh).

5275. **Federn, P. The undirected function in the central nervous system. A question put to physiology by psychology.** *Int. J. Psycho-Anal.*, 1938, 19, 173-198.—The author develops the thesis that conscious contents exercise a directly selective function even without preconscious or unconscious links. He begins with the question: Do only connected associations exist, or are there disconnected and distinct associations as well? This question is then developed in connection with dream symbolism, schizophrenic thought processes, inner experiences as contrasted with outer experiences, the unitary nature of the ego cathexes, the relationships of the ego boundary, the influence of instincts and affects upon the processes of directed and undirected psychical connections, and the undirected character of the processes of condensation and regression. He concludes that undirected function

is the essence of the psyche, and that directed function is the physical side of the psychical and the psychical side of the physical life.—*M. H. Erickson* (Eloise Hospital).

5276. **Fernberger, S. W. Extra-sensory perception or instructions?** *J. exp. Psychol.*, 1938, 22, 602-607.—Experiments in extra-sensory perception indicate that regardless of whether a large number of minds are trying to influence the judgments of a number of individuals or no mind is trying to influence such judgments, two psychological principles are effective: (1) the influence of the loading of the instructions, and (2) the tendency to avoid repetition of a judgment in a series of judgments.—*S. W. Fernberger* (Pennsylvania).

5277. **Freud, S. The basic writings of Sigmund Freud.** (Ed. by A. A. Brill.) New York: Modern Library, 1938. Pp. 1007. \$1.25.—(Not seen).

5278. **Heun, E. Zur Hygiene des Träumens.** (The hygiene of dreaming.) *Fortschr. Med.*, 1938, 56, 4-5.—Dreaming is to be interpreted as a natural mode of expression of the psychic, and is not to be dissected according to causes. An interpretation which recognizes the laws of dreaming can evaluate its importance for the total accomplishment and raising of culture as well as for the general conduct of life.—*P. L. Krieger* (Leipzig).

5279. **Hill, L. B. The use of hostility as defense.** *Psychoanal. Quart.*, 1938, 7, 254-264.—The use of an attitude of hostility as a means of defense is discussed in detail and illustrated by significant material cited from the case histories of three patients, all of whom manifested intensely hostile attitudes during analysis in the avoidance of recognition of their basic emotions, needs and problems. The author concludes that success in meeting the problems of these patients depends upon avoidance of reaction either to their need of love or to their hostility, and the meeting of them on the middle ground of friendly interest in the verbalization of the problem of fears of the need for love, in which setting hostility as a defense may be given up.—*M. H. Erickson* (Eloise Hospital).

5280. **Jones, E. Papers on psycho-analysis.** (4th ed.) Baltimore: William Wood, 1938. Pp. 622. \$8.00.—20 papers have been omitted in this edition and 12 new ones substituted. These new chapters are usually limited to the more fundamental themes. The first part of the book is devoted to "General Papers," ranging from a detailed description of Freud's psychology to the problem of instincts and ending with the author's thought about the "Future of Psychoanalysis." The four chapters of the second part deal with the psychoanalysis of dreams, and form the transition to the third part, "Clinical Papers." Jones' papers on obsessional neurosis, impotence, aphasias, anxieties, fears, guilt and hate, the mantle symbol, jealousy, and similar topics may be found here. The psychoanalytic study of the child is discussed in the fourth part of the book, which ends with a chapter on the phallic stage and the early development of female sexuality, as psy-

choanalysis sees it at the present time.—*M. Grotjahn* (Menninger Clinic).

5281. Krüger-Thiemer, O. F. *Das Traumerlebnis, ein Beitrag zur "Kindesaussage."* (Dream experience: a contribution to children's testimony.) *Kriminalistik*, 1938, 12, 108-110.—The uncritical and imaginative child mind may easily link up dream content with illusions which occur on falling asleep and awakening, the whole forming a detailed story which he relates with conviction. This is falsification of memory due to narrowed perception in close connection with illusions. The diagnosis is substantiated by the improbable content, lack of motivation or objective evidence, and tracing out the circumstances which served as stimuli. The details may be suggested by adults' questions during the first narration.—*M. E. Morse* (Baltimore).

5282. Laforgue, R. *Clinical aspects of psychoanalysis.* London: Hogarth Press, 1938. Pp. 300. 15s.—The author's lectures to the French Institute of Psychoanalysis are collected in this book. Special emphasis is placed upon the more technical problems of psychoanalytic treatment. Starting with the approach of the patient in the beginning of analysis, the author proceeds with an outline of the treatment by illustrating it with case histories, and ends with a description of technical details, such as the proper time to finish treatment and the like. The fundamental rule, the transformation in the patient, and the problem of active psychoanalytic technique are discussed, and the analysis of their therapeutic factors is attempted. Some chapters are devoted to the clinical aspects of special kinds of neuroses, such as frigidity in women, the "Carmelite" neurosis, the failure neurosis, and the family neurosis.—*M. Grotjahn* (Menninger Clinic).

5283. Langfeldt, G. *Psykoanalytiske misgjerninger.* (Psychoanalytical misdeeds.) *Tidsskr. norske Laegeforen.*, 1938, 58, 271-278.—The writer, who is at the Psychiatric Clinic of the University of Norway, gives his experiences with five patients who had been given psychoanalytical treatment by a certain school of analysts in Norway, some of them for more than three years before being committed to the clinic. Some of these were proven to be clear cases of insanity or feeble-mindedness.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5284. Lungwitz, H. *Das Träumen als geistseelische Nacharbeit.* (Dreaming as a nocturnal mental operation.) Halle: Marhold, 1938. Pp. 60.—*R. R. Willoughby* (Brown).

5285. Markuszewicz, R. *Od sado-masochizmu do popędu śmierci (dalsza rewizja teorii Freudowskiej).* (From sadism and masochism to the death instinct. A further revision of the Freudian theory.) *Kwart. psychol.*, 1938, 10, 103-143.—A discussion of the various changes Freud has made in explaining sadism and masochism. The author attacks Freud's latest explanation, which links sadistic and masochistic impulses to a death instinct rather than to

sexuality.—*T. M. Abel* (Trade Extension Classes, New York City).

5286. Peck, M. *The meaning of psychoanalysis.* Garden City, N. Y.: Sun Dial Press, 1938. Pp. 304. \$0.79.—*R. R. Willoughby* (Brown).

5287. Pratt, J. G., & Price, M. M. *The experimenter-subject relationship in tests for ESP.* *J. Parapsychol.*, 1938, 2, 84-94.—The writers found that in independent research projects under closely parallel conditions, one obtained highly significant ESP scores while the other found only chance results. The cause of the discrepancy seemed to lie in the difference in the experimenters' approach to and handling of the subjects. In a joint experiment in which the formerly successful observer handled the subjects while the other observer controlled the test conditions, significant results were again obtained.—*C. E. Stuart* (Duke).

5288. Rhine, J. B. *The hypothesis of deception.* *J. Parapsychol.*, 1938, 2, 151-152.—The hypothesis that extra-chance scores in ESP tests may be the result of deception by the subject must be excluded ultimately not by dependence upon the general honesty of the subject, but by exclusion of possibility of sensory cues to the extent that no will to deceive may bear upon the results.—*C. E. Stuart* (Duke).

5289. Rhine, J. B., Smith, B. M., & Woodruff, J. L. *Experiments bearing on the precognition hypothesis: II. The role of ESP in the shuffling of cards.* *J. Parapsychol.*, 1938, 2, 119-131.—Experiments in which subjects called successfully the order of cards before they were shuffled suggested the possibility that the experimenter might be shuffling the cards in such a way as to favor their matching the call series. To test this possibility, subjects were given a pack of ESP cards and asked to shuffle them until they "matched" another pack, or a denoted series of symbols. Highly significant positive extra-chance results were obtained from the scores of 203 subjects. When experiments with screened cards are summarized the total score of 104 subjects is significantly above chance. Tests in which the subject's shuffling was limited in time or to a specified number of acts yielded significant results only in the case of one group reported.—*C. E. Stuart* (Duke).

5290. Schilder, P. *Psychoanalytic remarks on Alice in Wonderland and Lewis Carroll.* *J. nerv. ment. Dis.*, 1938, 87, 159-168.—In Lewis Carroll's stories are found the expression of an enormous anxiety, preponderant oral-sadistic trends of a cannibalistic character, a continuous threat to the integrity of the body in general, a loss of the third dimension, distortion of time, reversals which may be symbolic of the inability to find a definite direction in one's sexuality, and words considered as objects in themselves. "I suspect that nonsense literature will originate whenever there are incomplete object relations and a regression to deep layers involving the relation of space and time on the basis of primitive aggressiveness."—*C. R. Atwell* (Boston Psychopathic Hospital).

5291. Schwab, G. Das Träumen als psychophysische Funktion und pathologische Erscheinung. (Dreaming as a psychophysical function and pathological phenomenon.) *Psychiat.-neurolog. Wschr.*, 1937, 39, 394-399.—P. L. Krieger (Leipzig).

5292. Shulman, R. A study of card-guessing in psychotic subjects. *J. Parapsychol.*, 1938, 2, 95-106.—Screened matching tests for ESP were given to 141 patients in a mental hospital. The patients were grouped into 14 clinical classifications. Of these one group, the manic-depressive depressed, gave significant positive scores. Another group, those with involuntional melancholia, gave consistent, although not significant, negative scores.—C. E. Stuart (Duke).

5293. Warner, L., & Raible, M. Summary of tests with miscellaneous subjects. *J. Parapsychol.*, 1938, 2, 149-150.—The writers summarize their results from informal exploratory ESP tests.—C. E. Stuart (Duke).

5294. Wilson, G. W. The red-headed man. *Psychoanal. Rev.*, 1938, 25, 165-169.—Case history stressing the interpretation of a dream.—L. S. Selling (Recorder's Court, Detroit).

5295. Zeiner-Henriksen, K. Psykoanalyse og laegevidenskab. (Psychoanalysis and medical science.) *Tidsskr. norske Laegeforen.*, 1938, 58, 389-393.—This is a summing up of the discussion which has been going on in Norwegian medical circles for the last five years concerning the relative value of psychoanalysis as a method of treatment. The author lists in one column the symptoms which might be brought about by mental stimulation and in an adjoining column the materia medica which will bring about the same results. He concludes that in order to get an authoritative basis for the relative value of psychoanalysis, a clinic for nervous diseases with both resident and non-resident patients should be established, where all modern methods of investigation should be tried out for the determination of the correct therapy of neuroses.—M. L. Reymert (Mooseheart Laboratory for Child Research).

5296. Zilboorg, G. The sense of immortality. *Psychoanal. Quart.*, 1938, 7, 171-199.—General beliefs in and attitudes toward immortality and the peculiarities manifested in the conceptualization of immortality are discussed. The author then raises the questions: "What are the instinctual forces which enter into play as soon as the problem of life and death is faced, and finally solved in favor of immortality?" and "Which topological units of the human personality play the decisive role in this solution of the problem?" These are answered by an analysis of instances of the behavior in the presence of death and by stressing the importance of the roles of the ego and the super-ego. He concludes that "the primitive ideal of immortality has evolved in the course of thousands of years into a sense of immortality, and that this sense, acting as if it were an independent powerful impulse, plays a major role in the elaboration of our theories of social salvation, in the altruistic aspects of our communal life. The

role it plays in the fabric of our neuroses and psychoses (particularly in their depressive forms) is by no means a minor one, but with comparatively few exceptions the influence of this sense of immortality appears to be indirect: it exerts its pressure through a sort of short circuit connection between its infantile left-overs in our personalities and the drives it generates in our purely social adaptation."—M. H. Erickson (Eloise Hospital).

[See also abstracts 5086, 5088, 5090, 5113, 5301, 5315, 5325, 5333, 5337, 5385, 5411, 5479, 5593, 5613.]

FUNCTIONAL DISORDERS

5297. Bange, F. Graviditätspsychosen und die Frage der künstlichen Unterbrechung der Schwangerschaft. (Puerperal psychoses and the question of the artificial interruption of pregnancy.) Kiel: (Med. Diss.), 1937.—R. R. Willoughby (Brown).

5298. Basedow, I. Ein Beitrag zur Frage der Mischpsychosen. (A contribution to the problem of mixed psychoses.) Jena: Buchdruck-Werkstätte, 1938. Pp. 21.—R. R. Willoughby (Brown).

5299. Bender, L. Art and therapy in the mental disturbances of children. *J. nerv. ment. Dis.*, 1937, 86, 249ff.—(Not seen).

5300. Bender, L., & Yarell, Z. Psychoses among followers of Father Divine. *J. nerv. ment. Dis.*, 1938, 87, 418-449.—C. R. Atwell (Boston Psychopathic Hospital).

5301. Blitzsten, N. L. Psychoanalytic contributions to the conception of disorder types. *Amer. J. Psychiat.*, 1938, 94, 1430-1439.—A thesis of the paper is that an understanding of the predominant symptoms and the precipitating causes is possible only when one takes into consideration the specific past experiences of the individual and the conscious or unconscious traces of these experiences.—R. Goldman (Boston Psychopathic Hospital).

5302. Bolles, M., & Goldstein, K. A study of the impairment of "abstract behavior" in schizophrenic patients. *Psychiat. Quart.*, 1938, 12, 42-65.—The tests (color sorting, color-form sorting, object sorting, modified Kohs block and feature profile) applied in this investigation allow a differentiation between capacities for abstract and concrete behavior. The difference between the 16 schizophrenic patients studied and normal individuals lies in the capacity for abstract behavior. Both show concrete behavior in certain situations where it is adequate. In the sorting tests the normal may not seem to differ from the abnormal as long as it is possible to perform a task successfully in a concrete way, but the normal individual is also able to sort in another, more abstract way, which the abnormal cannot do. The abnormal proceeds in a concrete way on all sorting tests. The characteristic defect of the schizophrenic patients studied was an impairment of the capacity for abstract behavior.—C. R. Atwell (Boston Psychopathic Hospital).

5303. Bostroem, A. *Allgemeine und psychische Symptome bei Erkrankungen des Grosshirns.* (General and psychic symptoms in cerebral diseases.) In Bumke & Foerster, *Handbuch der Neurologie*, 1936, 6, 961-1021.—The author first discusses the psychic symptoms in which distortion of the receptive functions predominates (perception, attention, attitudes), next those resulting from irregularities in the evaluation of the material (memory, thinking, intelligence). A final section is reserved for psychic symptoms connected with interferences with the inauguration of psychic functions, and is a contribution to the psychology of motivation and volition.—P. L. Krieger (Leipzig).

5304. Bradley, C. The family physician and the feeble-minded child. *R. I. med. J.*, 1937, 20, 189-193.—R. R. Willoughby (Brown).

5305. Brugger, C. *Die Vererbung des Schwachsinns, 1936-37.* (The inheritance of feeble-mindedness, 1936-1937.) *Fortsch. Neurol. Psychiat.*, 1938, 10, 228-236.—The author reviews studies on the biological inheritance of feeble-mindedness. Because of space limitations, investigations concerning other phases of feeble-mindedness are not included. The majority of studies are concerned with investigations of families with one or more feeble-minded offspring, with regard to the severity and frequency of mental deficiency, "word-blindness" with and without mental deficiency, and feeble-mindedness among children born prematurely. Studies of cretinism, mongolism and microcephaly are grouped under separate headings. Bibliography.—D. S. Oberlin (Delaware State Hospital).

5306. Brugger, C. *Die Fruchtbarkeit der Eltern von erblich Schwachsinnigen und von Normalbegabten.* (The fecundity of the parents of the hereditary feeble-minded and of the normally endowed.) *Z. ges. Neurol. Psychiat.*, 1936, 156, 752-760.—The number of children in families containing mentally deficient children is larger than in those whose members are normal, on the average. Thus before 1911 parents with normal children had 3.3 children per family, while the other group had 5.7; the respective figures for the period 1911-1920 were 2.1 and 3.2, while from 1921-1925 they were 1.7 and 2.3. This leads the author to conclude that measures should be taken to raise the birth rate of normal families and to decrease that of families with hereditary taints.—(Courtesy *Année psychol.*).

5307. Burrow, T. Bio-physical factors in relation to functional imbalances. *Hum. Biol.*, 1938, 10, 93-105.—Attention is directed toward isolating, when possible, "the common element responsible for the organism's domination by affective or wishful impulses—man's partial pattern of behavior—as they exist equally in the 'normal' community and in the neurotic patient." Disorders of behavior should be adjusted by a physiological method of differentiation between fantasy and actuality and between wish and direct stimulation to total action.—O. W. Richards (Spencer Lens Company).

5308. Carlberg, K. *Statskolonien för sinnessjuka i Gheel och den öppna vården i Sverige.* (The state colony for the mentally diseased in Gheel and the open ward in Sweden.) *Soc.-med. Tidskr.*, 1938, 15, 78-85; 106-110.—The writer gives the history of the city of Gheel, five miles outside Antwerp, Belgium, which has been an international center for the care and treatment of the mentally diseased since the first supposed miracles happened there around the year 1200. The city has 18,000 inhabitants, of whom one fifth are insane; they are not considered as patients but as boarders in private families, under central medical supervision and state control. The writer describes the types of patients, the system of placement in private homes, the forms of treatment, the various kinds of work therapy and psychotherapy, etc., in all details, and concludes that of all forms of extra-institutional treatment a system like that of the city of Gheel would give the best results. The system is considered in the light of the efforts of modern Sweden to give more emphasis to extra-mural treatment of the insane, and several concrete suggestions are given for practical arrangements. There are several pictures from Gheel.—M. L. Reymert (Mooseheart Laboratory for Child Research).

5309. Cohen, B. M., & Fairbank, R. E. Statistical contributions from the mental hygiene study of the eastern health district of Baltimore. I. General account of the 1933 mental hygiene survey of the eastern health district. *Amer. J. Psychiat.*, 1938, 94, 1153-1161.—The first and introductory report in a series of papers in which the results of the survey of "the prevalence of mental ill-health, defect and instability in the area in relation to its population" will be presented. The collection, classification, and treatment of the data in 3796 histories are discussed.—R. Goldman (Boston Psychopathic Hospital).

5310. Cohen, B. M., & Fairbank, R. E. Statistical contributions from the mental hygiene study of the Eastern Health District of Baltimore. II. Psychosis in the Eastern Health District. 1. The incidence and prevalence of psychosis in the Eastern Health District in 1933. *Amer. J. Psychiat.*, 1938, 94, 1377-1395.—R. Goldman (Boston Psychopathic Hospital).

5311. Crothers, B., & Lord, E. The appraisal of intellectual and physical factors after cerebral damage in children. *Amer. J. Psychiat.*, 1938, 94, 1077-1088.—R. Goldman (Boston Psychopathic Hospital).

5312. Dahlberg, G. On the frequency of mental deficiency. *Upsala Läk Fören. Förh.*, 1937, 42, 439-461.—Using all available literature, the author endeavors to arrive at a calculation of the frequency of mental defect in Sweden. This frequency for adults is about 0.5%; the children in classes for mental defectives (7-14 years of age) represent 1% of the population. This latter percentage is taken as being altogether too low. As counted in the population of 1930, for the school ages 7-14 there

were 3800 feeble-minded children and 18,000 children of auxiliary grade placement. For the group 15-60 years of age in the same year, 19,000 were feeble-minded and there were 90,000 low-grade defectives, of which 57,000 were men. The conclusion is reached that the low-grade defectives, i.e. the auxiliary-class children, constitute a much more important problem than the feeble-minded, although up to now both eugenics groups and institutions for social relief have overestimated the importance of the feeble-minded. Bibliography.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5313. Dishong, G. W. The dementia praecox problem. *Ann. intern. Med.*, 1938, 11, 2214-2222.—*W. J. Brogden* (Johns Hopkins).

5314. Doi, M. [On a mental disease caused by possession and oracle. I. Clinical observations. II. Psychopathological considerations.] *Arb. Psychiat. Inst. Sendai*, 1936, 5, 87-125.—Clinical observations on 16 patients showing symptoms of possession and oracle, and psychopathological considerations in which the author tries to explain the relation between the symptoms and the disposition of the patients in connection with the theory of the conditioned reflex are treated.—*R. Kuroda* (Keijo).

5315. Doi, M. [On a mental disease caused by possession and oracle. III. Psychoanalytic considerations.] *Arb. Psychiat. Inst. Sendai*, 1937, 6, 50-108.—Under the establishment of the symptoms of possession and oracle the author treats the place of psychoanalysis, possession and the conditioned reflex theory, child-like feelings and feelings toward others; and under their development the feeling aroused toward possessing gods, compulsive growth of ideas, categorical imperative in primitive races, a struggle between possessing gods and possessed selves, psychic mechanisms of compulsive neuroses and of phobias, attributes of the gods and dialectic development of the disease.—*R. Kuroda* (Keijo).

5316. Eugster, J. Zur Erblichkeitsfrage des endemischen Kropfes. III. Die Zwillingsstruma. Untersuchungsergebnisse an 520 Zwillingspaaren. (The question of the heredity of endemic goiter. III. Goiter in twins. Results of investigations on 520 pairs of twins.) *Arch. Klaus-Stift. Vererb.-Forsch.*, 1936, 11, 369-539.—*P. L. Krieger* (Leipzig).

5317. Fanning, A., Lehr, S., Sherwin, R., & Wilson, M. The mental health of children of psychotic mothers. *Smith Coll. Stud. soc. Work*, 1938, 8, 291-343.—This is a compilation of theses presented by four students in social work, dealing with 185 children, mostly between the ages of 6 and 21, whose mothers were patients of the Central Islip, New York, and the Rhode Island State Hospitals. The information concerning the children's adjustment was obtained by means of interviews, observations, and discussions with the children and their relatives and friends. The authors classified the children in terms of four categories of adjustment—the well-adjusted children, the quiet, "too good" children, children with localized problems, and children with severe, generalized mal-

adjustment. They found, among other things, that the psychotic condition of mothers is a very important factor for children's social and emotional maladjustment. Hence an adequate psychiatric service should be extended to the children of psychotic mothers to insure proper home environment and a sense of security. Several cases are cited.—*K. S. Yum* (Chicago).

5318. Flaig, J. Alkoholismus und Verbrechen vom Blickpunkt eines Irrenarztes aus. (Alcoholism and crime from a psychiatrist's viewpoint.) *Kriminalistik*, 1938, 12, 121-124.—Flaig reviews D. K. Henderson's *Alcohol and Psychiatry* (1936) in order to show the irreconcilability between the individualistic and liberalistic viewpoint of the past and the attitude of National Socialism. In foreign countries altogether too much stress is laid on the alcoholism and too little on the type of personality in which it occurs. "Humanitarian" measures for improvement of the alcoholic, mental hygiene, medical and psychiatric treatment, and institutions for alcoholics are all on the wrong track. The individual is negligible; the safety of the people is all. In the new Germany, alcoholics are considered to have a socially dangerous hereditary disease and therefore come under the law for prevention of hereditarily diseased offspring (sterilization). In the case of alcoholics who commit crimes, whether when intoxicated or not, no mitigating circumstances are recognized; they are subject to the law against dangerous habitual criminals.—*M. E. Morse* (Baltimore).

5319. Flinker, R. Die Psychologie und Psychopathologie der Hysterie. (The psychology and psychopathology of hysteria.) Leipzig: Thieme, 1938. Pp. 63. RM. 4.20.—Special emphasis is placed by the author upon the psychological conditions giving rise to hysterical symptoms. The list of contents includes: (1) theories, (2) the direction of activity in animals, in children, in primitive peoples, in cases of brain injury, etc., (3) the origin and formation of hysterical symptoms showing disturbances of motility, of sensibility, etc., and (4) therapeutic techniques.—*G. F. J. Lehner* (Vermont).

5320. Flügel, E. F. Über die Verteilung endogener Psychosen in Deutschland. (The distribution of endogenous psychoses in Germany.) *Allg. Z. Psychiat.*, 1938, 107, 268-276.—The statistical frequency of psychoses in the various German cities is given. Those which since the middle ages have been concentration points and crossroads for trade routes (Leipzig and Frankfurt) have the highest ratios of all psychosis (114.9 and 89.0 respectively) to 100 cases of schizophrenia. Flügel suggests the possibility of causal connections.—*P. L. Krieger* (Leipzig).

5321. Gellhorn, E. The action of hypoglycemia on the central nervous system and the problem of schizophrenia from the physiologic point of view. *J. Amer. med. Ass.*, 1938, 110, 1433-1434.—On the basis of the physiologic action of insulin, metrazol, sodium cyanide, and other drugs, it is suggested that

schizophrenia is characterized by a deficiency of the autonomic nervous system and particularly of its sympathetic division. Improvement or cure of schizophrenia is effected by these drugs, since they produce, by a profound alteration in the metabolism of the central nervous system, a sufficiently strong and lasting excitement of the sympathetic nervous system and thereby bring about a far reaching reorganization of all mental processes.—*W. J. Brogden* (Johns Hopkins).

5322. **Gibson, S., & Clifton, W. M. Hysterical blindness in children: report of two cases.** *Amer. J. Dis. Child.*, 1938, **55**, 743-749.—*W. J. Brogden* (Johns Hopkins).

5323. **Goldkuhl, E. Psychische Insuffizienzzustände bei Oligophrenien leichteren Grades. Eine persönlichkeitsanalytische Untersuchung.** (Mental insufficiency conditions in lighter degrees of oligophrenia. An analytical personality investigation.) *Acta psychiat., Kbh.*, 1938, Suppl. 15. Pp. 491.—This investigation is based upon 220 cases from the Psychiatric University Clinic of Lund in the years 1931-35. The material was arranged in four main groups: functionally insufficient, organically insufficient, schizophrenic, and oligophrenic individuals with miscellaneous organic psychoses and somatic diseases. Following a review of the literature the author describes his own treatment method and discusses lighter degrees of oligophrenia in general, and follows with chapters on special insufficiency conditions based on the general personality theory of Sjöbring; in which personality is conceived of as a sum of all mental activity and behavior tendencies of the individual, centered in four main factors: capacity, validity, solidity, and stability. The clinical materials are discussed as variants of these fundamental factors, and the various chapters describe (1) merely debile persons, (2) sub-valid debiles, (3) sub-solid debiles, (4) sub-stable debiles, and (5) debiles with various personality disturbances. Then follow chapters on the relations between debility, schizophrenia, and other illnesses. The chapters are all illustrated with case histories, and an appendix of 70 pages gives case histories illustrating the various subdivisions. Extensive bibliography.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5324. **Grosh, L. C. Insulin in the treatment of acute mania.** *J. nerv. ment. Dis.*, 1938, **87**, 559-569.—2 cases of acute elation showing comparative abnormality of the glucose tolerance test showed favorable results under insulin therapy.—*C. R. Atwell* (Boston Psychopathic Hospital).

5325. **Grotjahn, M. Psychoanalysis and brain disease.** *Psychoanal. Rev.*, 1938, **25**, 149-163.—Structural defects produce characteristic changes in thinking processes, but in addition there are deviations of psychological functions due to such factors as inferiority feelings arising from weakened mental capacity and change in social status consequent on loss of capacity. The author emphasizes that cause and motive are confused in the usual interpretation

of the psychological changes which accompany organic disease. Cases of juvenile paresis, tumors in the region of the third ventricle, and chorea are discussed.—*L. S. Selling* (Recorder's Court, Detroit).

5326. **Grove, V. Personality traits as criteria for the treatability of mothers by a child guidance clinic.** *Smith Coll. Stud. soc. Work*, 1938, **8**, 344-368.—30 cases which closed at the Worcester Child Guidance Clinic from 1935 to 1937 were divided between successful and unsuccessful treatments. Among the eight personality traits found significant as criteria, the most significant factor was the capacity to carry out plans and to make adjustments in the face of frustrations. Other important factors were a satisfactory marital adjustment, inferiority feelings, an attitude of real affection toward the child, and a normal amount of social interest. The mothers who were not successful in the treatment were lacking in the capacity to achieve goals, frequently had an unsatisfactory marital adjustment, had excessive social interest or none at all, and were often aggressive, dominating, and hostile under the cover of anxiety. They were deeply dissatisfied and restless. Helping them to gain confidence in their ability to handle situations was the most successful form of treatment.—*K. S. Yum* (Chicago).

5327. **Halliday, J. L. The rising incidence of psycho-somatic illness.** *Brit. med. J.*, 1938, Part 2, 11-14.—An analysis of Scottish morbidity statistics in the light of modern knowledge reveals a rising incidence of psychoneurotic and psycho-somatic illness.—*W. J. Brogden* (Johns Hopkins).

5328. **Halpern, L. Some data on the psychic morbidity of Jews and Arabs in Palestine.** *Amer. J. Psychiat.*, 1938, **94**, 1215-1222.—There is a distinct predominance of endogenous psychoses in the Jewish, Moslem Arab, and Christian Arab groups. There is a greater prevalence of alcoholic and syphilitic psychoses among the Arabs than among the Jews.—*R. Goldman* (Boston Psychopathic Hospital).

5329. **Harris, J. S. Mental disorder associated with child-bearing.** *Brit. med. J.*, 1936, Part 1, 835ff.—An analysis is presented of 45 cases of patients admitted to a hospital for mental disease during the period from 1931 to 1934. In 37 patients with mental illness first appearing during childbirth, the factor of child-bearing appeared to be the cause in whole or in part. The patients manifested a manic-depressive state (15), delirious reactions (8), and schizophrenic reactions (14). 5 patients showed symptoms during pregnancy; 3 showed symptoms immediately after miscarriage; 10 showed symptoms within a week after delivery, 9 during the second week, 4 in the third and fourth weeks, and 4 from the second to the eighth month after parturition. The mode of onset of the psychosis was difficult to determine exactly. The average duration of the mental symptoms in the 26 patients who recovered was ten months. 9 recovered within five months, 9 between six and seven months, and 8 between eleven and thirty-three months. When the different

forms of mental disorder encountered in this series of 37 cases were considered in detail by the authors, it was evident that a number of causal factors other than the child-bearing, either singly or in combination, appeared to play a part in development of the psychosis.—(Courtesy *Child Developm. Abstr.*).

5330. Henry, G. W. **Essentials of psychiatry.** [Rev. ed.] Baltimore: Williams & Wilkins, 1938. Pp. xii + 465. \$5.00.—In the first chapter the development of personality is outlined. The second chapter considers the ways in which a personality may become disorganized. These two chapters are followed by a consideration of the classification now in use and by seven chapters on the description and interpretation of the types of personality disorder. Chapter IX contains a detailed psychiatric history with interpretive comments. The subsequent chapters are on principles of treatment, psychiatric nursing, psychopathology of the normal, mental hygiene, disorders of childhood, psychiatric social service, medico-legal aspects, psychiatry in general hospital practice, and psychiatric history.—G. W. Henry (N. Y. Psychiatric Institute).

5331. Hochheimer, W. **Zur Phänoanalyse stationär Schwachsinniger.** (Concerning "pheno-analysis" in stationary feeble-mindedness.) *J. Psychol. Neurol., Lpz.*, 1936, **47**, 170-219.—One generally regards as "feeble-minded" those who are incapable of accomplishing common tasks; the author attempts to show that the feeble-minded meet with a special difficulty which can best be disclosed by "pheno-analysis." This technique of gaining access to the patient's inner world consists of an analysis of his free associations and his attitudes. Having studied six chronic cases in relation to some very simple tasks, he concludes that the feeble-minded are not absolutely inattentive or unintelligent; they appear to be so only when abstract thought is required. The feeble-minded must think in a concrete world, dealing with familiar objects. The deficient usually wish to hide their lack of ability; a few take refuge in mutism before impossible tasks, but the majority exhibit free flights of meaningless language. The deficiency of the power of abstraction, of the "mental dynamics," is contrasted with cases (e.g. in chorea) in which there is a definite obstacle to thinking.—(Courtesy *Année psychol.*).

5332. Isserlin, M. **Aphasie.** (Aphasia.) In Bumke & Foerster, *Handbuch der Neurologie*, 1936, **6**, 626-806.—A study of aphasia must begin with a description of symptoms, and hence, since these are essentially psychic in nature, with an empirical psychological investigation. It is necessary to consider the entire organism in its total behavior characteristics; illustrative descriptions and clinical pictures are not sufficient. Determining the nature of the impediment is essentially different from determining normal function. By means of accurate description and comparison, each symptom must be psychologically localized, which leads to further conclusions of a somatic nature. Though the totality must not be lost sight of, there is no justi-

fiable reason for a monistic conception, since the theory of localization has not yet been disproved in its essential points. The author gives the symptomatology and pathophysiology of aphasia and its clinical manifestations (motor, sensory, transcortical, infantile, etc.).—P. L. Krieger (Leipzig).

5333. Jones, E. **The unconscious mind and medical practice.** *Brit. med. J.*, 1938, Part 1, 1354-1359.—The unconscious minds of both the patient and the physician interfere with accurate medical treatment.—W. J. Brogden (Johns Hopkins).

5334. Kanner, L. **Habeas corpus releases of feeble-minded persons and their consequences. A follow-up study.** *Amer. J. Psychiat.*, 1938, **94**, 1013-1033.—The circumstances were studied under which 166 patients were released on writs of habeas corpus from the Maryland State Training School. A detailed study of the number of arrests, illegitimate children, economic maladjustments, etc., was made. The present and future cost to the commonwealth due to indiscriminate habeas corpus releases by its courts of justice is a large one.—R. Goldman (Boston Psychopathic Hospital).

5335. Karn, H. W. **A case of experimentally induced neurosis in the cat.** *J. exp. Psychol.*, 1938, **22**, 589-593.—Following mastery of the double alternation response in a temporal maze, a cat 6 months old ceased correct performance of the response and subsequently manifested behavioral symptoms characteristic of experimentally induced neurosis. The neurotic behavior was accompanied by a reversion to a simpler but incorrect manner of responding which had appeared during the early part of the training period.—H. W. Karn (Pittsburgh).

5336. Keller, J. **Zur Kenntnis des Mongolismus unter besondere Berücksichtigung der Ätiologie.** (Toward knowledge about mongolism, with special reference to its etiology.) Zürich: Börsiz, 1938. Pp. 23.—R. R. Willoughby (Brown).

5337. Kimura, R. **Psychoanalytische Untersuchung von vier Fällen von Schizophrenie.** (Psychanalytic researches on four cases of schizophrenia.) *Arch. Psychiat. Inst. Sendai*, 1936, **5**, 1-44.—Freud maintains that psychoanalytic treatment, which is effective in the recovery from hysteria or psychasthenia, is of no use in the domain of schizophrenia. The author reviews theoretical and practical developments concerning schizophrenia in full detail and criticizes prevailing theories in connection with four cases which he himself treated. He reached the conclusion that schizophrenia, broadly understood, can be construed as maladjustment objectified in the form of psychic regression into an infantile state of auto-eroticism or narcissism, and in this sense the method of psychoanalysis may be used not only with psychological but also with somatic symptoms.—R. Kuroda (Keijo).

5338. Kinberg, O. **Vanemässiga bärägerier av man lidande av posttraumatisk hjärnskrumpning med epileptiforma anfall och psykisk invaliditet.**

(Habitual frauds of a man suffering from post-traumatic shriveling of the brain with seizures of an epileptic nature and mental invalidity.) *Svenska Läkartidn.*, 1938, **35**, 819-833.—A detailed description and discussion of the mental and somatic investigations of a swindler whose case brings up very complicated problems of a criminal and political nature as regards the new Swedish penal code.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5339. Kleindienst, E. Bedeutung des Alters der Eltern sowie der Reihenfolge der Geburtenzahl der Kinder für ihre geistige und körperliche Minderwertigkeit. (The significance of the age of parents and of birth order for mental and physical defect in children.) *Mschr. Kinderheilk.*, 1935, **64**, 24-47.—*P. L. Krieger* (Leipzig).

5340. Kloos, G. Störungen des Zeiterlebens in der endogenen Depression. (Disturbances in the experience of time during endogenous depressions.) *Nervenarzt*, 1938, **11**, 225-244.—Only a rather small number of depressives are aware of time. Disturbances in the experience of time in depressed persons are not so uniform as E. Strauss, for instance, thinks. They do not always originate in vital inhibitions, but are also produced by the intellectual working through of certain self-observations during the depressed period. The change in the experience of time is often a symbolic expression of certain states of mind, during which the patients transfer, for instance, the hypochondriacal feeling that they are "run down" or retarded to their experience of time, which may also appear to be retarded. Much information given by depressed persons becomes understandable only by such symbolic interpretation. There is not always a parallelism between the degree of inhibition and the degree of disturbance in the experience of time. The importance of the anticipation of the future has perhaps been overestimated. The dominance in the direction of the consciousness of time is coincidental with the direction of emotions and will power of the individual person. For instance, the Persian religion is dominated by the symbolism of the future; the Chinese religion by the symbolism of duration; the life attitudes of the Indian are centered on the stagnation of time.—*P. L. Krieger* (Leipzig).

5341. Kloos, G., & Näser, E. Die psychische Symptomatik der Lungentuberkulose. (Mental symptoms in tuberculosis.) Berlin: Springer, 1938. Pp. 32. RM. 2.70.—*R. R. Willoughby* (Brown).

5342. Landes, R. The abnormal among the Ojibwa Indians. *J. abnorm. soc. Psychol.*, 1938, **33**, 14-33.—Ojibwa culture does not provide a traditional hierarchy in which man can find his place and in so doing attain stability. He can only continue wary and irritable, wondering about his status in other people's eyes. Severe anxiety neuroses occur with special reference to food, and manifest themselves in melancholia, violence and obsessive cannibalism, referred to by the Ojibwa as "windigo."—*C. H. Johnson* (Boston Psychopathic Hospital).

5343. Landkof, B. L. Bezuslovnye i uslovnye sosudistye reflexi u shizofrenikov. (Unconditioned and conditioned vascular reflexes in schizophrenics.) *Trud. tsentral. psikhonevrol. Inst.*, 1938, **10**, 37-63.—9 schizophrenic patients acted as S's in an investigation of plethysmographic curves in response to electric shock and to associated sound (bell) stimuli. S's fell into two groups, 5 with a dominant paranoid-hallucinatory syndrome and 4 with predominantly catatonic characteristics. An unspecified number of experimental sessions with each S were carried out between 1933 and 1935. Sample protocols for each S are presented. In the first group the normal lowering of the curve (contraction of the blood vessels) upon presentation of shock was not always observed; where it occurred it was likely to be associated with weak shock, while medium and strong shocks tended to produce a weakening of the response; sometimes it was reversed in direction. In the second group of S's these characteristics of the response were far more marked. Conditioned reflexes were difficult to establish and tended to be highly unreliable and transitory; optimal conditions required weak shock and long pauses between trials. The CR also was occasionally reversed: i.e., vasodilation rather than vasoconstriction appeared. The states described above are held to indicate what Pavlov termed a "hypnotic" state of the cortex and some subcortical areas, with a "phase of equalization," a "paradoxical phase," and an "ultra-paradoxical phase." The first group of patients, with less severe laboratory signs of disturbance of the c.n.s., showed good orientation, remission, etc., while the second group showed deeper, more permanent psychic disturbance. Summary in French.—*L. J. Stone* (Sarah Lawrence).

5344. Landkof, B. L. Terapiya dlitelnyim snom v psikhiatricheskoi praktike. (Treatment by prolonged sleep in psychiatric practice.) *Trud. tsentral. psikhonevrol. Inst.*, 1938, **10**, 133-157.—62 patients, mostly schizophrenics, were observed in 1932 to determine the effect of prolonged artificial sleep on the course of the psychosis. The indication for such treatment was disturbance of sleep. All S's were recent patients. Trional, veronal, sulfonal, and luminal were used in doses of .5 to 1.0 gr.: 1-3 gr. per 24 hrs. The period of narcotization was 10-18 days. Patients with a confusional hallucinatory syndrome responded readily to the action of the narcotics; sleep returned, hallucinations disappeared, the mental state improved. Following this the clinical picture showed gradual improvement, with return to normal life and resumption of work. Patients with catatonic excitement took less readily to the treatment and following it their symptoms returned, although a few of them were later released. Hebephrenics lost their childish symptoms immediately after treatment, but in most patients these returned. Paranoid schizophrenics showed no amelioration of symptoms at any time. Summary in French.—*L. J. Stone* (Sarah Lawrence).

5345. Lang, J. The other side of hallucinations. *Amer. J. Psychiat.*, 1938, **94**, 1089-1097.—A report

from a schizophrenic of the phenomena which he experienced. Auditory hallucinations, pseudo-auditory pseudo-hallucinations, visual hallucinations, combined visual and auditory hallucinations, hallucinatory pain, and miscellaneous (proprioceptive, pressure, olfactory, kinesthetic) hallucinations are described and discussed. Four general factors are given. "From the viewpoint of the patient, hallucinations are pre-existingly organized stimulations of the sensory nervous system which the conscious self neither initiates nor anticipates, but which form for it merely aspects of experience."—*R. Goldman* (Boston Psychopathic Hospital).

5346. **Lange, J.** Agnosien und Apraxien. (Agnosia and apraxia.) In *Bumke & Foerster, Handbuch der Neurologie*, 1936, 6, 807-960.—The most significant psychological and clinical contributions are summarized in three parts: optic agnosia, tactile agnosia, and apraxia. Many phenomena in the narrow field of agnosia may be interpreted as apraxia (e.g., reading difficulties). Notably, in motor apraxia the failure of the movement interferes with its recognition. Finger agnosia and constructional apraxia are disturbances which indicate apraxia as well as agnosia. The article contains illustrative clinical case studies rather than theoretical discussions of localization, and emphasizes the fact that outside of the cortical periphery injuries in different parts may lead to different types of syndromes.—*P. L. Krieger* (Leipzig).

5347. **Leary, T.** Some newer aspects of the alcohol problem. *New Engl. J. Med.*, 1938, 218, 827-833.—*W. J. Brogden* (Johns Hopkins).

5348. **Leonhard, K.** Chronische Wahnbildung eines Epileptikers aus ekstatischer Religiosität. (Chronic delusional formation in an epileptic, originating from ecstatic religiosity.) *Allg. Z. Psychiat.*, 1938, 107, 233-245.—*P. L. Krieger* (Leipzig).

5349. **Ley, J.** La thérapeutique des anomalies sexuelles graves par la castration. A propos d'un cas d'exhibitionnisme opéré et guéri. (The therapy of serious sexual anomalies by castration. A case of exhibitionism that was operated and cured.) *J. belge Neurol. Psychiat.*, 1938, 38, 344-356.—The author discusses the somatic, psychic and social effects of castration in cases of sexually abnormal people, both men and women. He reports the case history of a man of 35, who requested castration after having been arrested several times for exhibitionism. The patient was completely cured of his sexual abnormality and experienced no ill effects from the operation. The author concludes that castration is indicated only in men in cases of sexual abnormalities, that it should not be performed before the age of 25, and that it should be preceded by psychotherapy. Schizophrenia may be a contra-indication.—*H. Sys* (Cornell).

5350. **Liddell, H. S.** The experimental neurosis and the problem of mental disorder. *Amer. J. Psychiat.*, 1938, 94, 1035-1043.—"Neurotic" sheep differ from normal animals in their irritability and

tics when placed in the Pavlov frame; pulse rate and respiration differ from those of normal sheep. Outside of the laboratory the neurotic sheep shows general restlessness in increase in its daily neuromuscular activity as determined by the pedometer watch, and also by the disturbance in the diurnal variation of its activity. Absence from the laboratory is without substantial effect in these sheep. "The neurotic sheep . . . may serve as a standard animal preparation with which to explore therapeutic measures of value in restoring the poise or balance of the functionally disordered nervous system." Experimental neurosis is believed to be caused by the equivalent of a human conflict situation. The animal subject provides an unique test object for analyzing the essential conditions productive of nervous strain and derangement.—*R. Goldman* (Boston Psychopathic Hospital).

5351. **Lindner, T.** Sjukassorna och neurosprofylaxen. (Municipal sickness insurance and prophylaxis of neurosis.) *Soc.-med. Tidskr.*, 1938, 15, 69-72.—The city of Stockholm pays out in insurance more than one million kronor a year to patients diagnosed by district and private physicians as "neurotic." The writer criticizes the habit of the Swedish general practitioner of diagnosing "neurosis" by excluding any physical ailments, and maintains that the public insurance feature is apt to increase the number of "neurotics" and prolong the time of cure for the individuals. Better psychiatrically and psychologically trained physicians, better public general mental and physical hygiene, etc., are the only factors which will decrease the frequency of neurotics in the general population.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5352. **Malamud, W.** A definition of the psychoneuroses. *Med. Rec., Houston*, 1938, February. Pp. 5.—"Psychoneurotic behavior reactions are manifestations of disturbances in the functions of the personality, evaluated with due consideration of social, cultural, or individual settings, which are expressions of conflicts, the nature of which is unknown to the individual. They are characterized by (1) clinical features of a positive type, such as conversions, abnormal emotional states, anakastic reactions and fugues, and (2) negative features, namely, no demonstrable static organic pathology, no primary disturbance of affect, no deterioration of intelligence, and no distortion of external reality."—*J. McV. Hunt* (Brown).

5353. **Malzberg, B.** Is there a relative increase in mental disease? *J. nerv. ment. Dis.*, 1938, 87, 545-555.—Based on the relation of numbers of first admissions to state hospitals to the general population, an increase in mental disease is found. The arguments that there have been a growth of hospital provisions, a change in the public attitude, and a rise in the age level of the general population, are refuted. The annual rate of increase, however, has been very small.—*C. R. Atwell* (Boston Psychopathic Hospital).

5354. Mishchenko, M. N., & Poznanski, A. S. *O sootnoshenii mezhdu fizicheskoi siloi razdrazhitelya i kharakterom reaktsii pri shizofrenii.* (Concerning the relation between the physical energy of stimuli and the nature of the response in schizophrenia.) *Trud. tsentral. psikhonevrol. Inst.*, 1938, 10, 91-103.—Pavlov's "principle of the energy of the stimulus" states that the stronger the stimulus the stronger is the response. Conformity to this principle is held to be an indication of adequate function and vigor of cortical nerve cells. 30 schizophrenic patients 18-36 years old were S's. 8 senile psychotics, 5 manic-depressives; and 2 paretics served as controls. Each S was instructed to press a button as visual and auditory stimuli of varying intensities were presented; the strength of response was automatically recorded. The S's showed disturbance of the "principle of the energy of the stimulus" with what Pavlov has termed "equalization" (all stimuli produce the same response), "paradoxical" (greater response to weak stimuli), and "narcotized" (no response) phases. Two groups of schizophrenics were established, of which the first was far more acutely disturbed. In the first group there were marked deviations from the principle, in the form of narcotic and paradoxical phases; in the second group the deviations were less and the phase of equalization predominated. Somewhat similar results were found in the other types of psychoses. Sample protocols are presented. Summary in French.—L. J. Stone (Sarah Lawrence).

5355. Neumann, H. *Ganzheit und Komplex.* (Totality and complex.) *Z. angew. Psychol.*, 1938, 54, 18-31.—This commemorative contribution in honor of the 70th birthday of L. Seif deals with the concepts of totality and complex as employed in psychotherapy. It traces their origin and emphasizes the importance of social factors.—G. F. J. Lehner (Vermont).

5356. Nyssen, R. *Les réactions hystéro-mentales et le problème de leur réalité biologique.* (Hystero-mental reactions and the problem of their biological reality.) *J. belge Neurol. Psychiat.*, 1938, 38, 331-343.—The author discusses recent views regarding hysteria and points out the difficulties in determining true hysterical manifestations. He disagrees with those authors who deny the existence of hysteria as a clinical entity, but believes that much further study is needed to clarify the subject. Measurements of involuntary physiological phenomena, such as changes in respiration, circulation, electric resistance and skin temperatures, secretory and humoral modifications, variations in muscular and neural potentials, etc., will afford valuable factors for control.—H. Szyz (Cornell).

5357. Olson, D. M. *Chronic subdural hematoma with acute psychotic manifestations.* *J. Amer. med. Ass.*, 1938, 110, 1664-1665.—Report of a case in which the main symptomatology was that of an acute psychosis without neurologic manifestations. Proper drainage of the hematoma produced a complete recovery.—W. J. Brogden (Johns Hopkins).

5358. Ortmann, C. *Mecodrin ved depression og neuroser.* (Mecodrin in depression and neuroses.) *Ugeskr. Laeg.*, 1938, 100, 673-676.—An account of experiments with various doses of mecodrin given each morning to 100 patients in Dianalund Nerve Sanatorium. Results based upon verbal reports of patients themselves seem to verify both favorable and unfavorable results of former investigations. Such results are listed in detail. Bibliography.—M. L. Reymert (Mooseheart Laboratory for Child Research).

5359. Protopopov, V. P. [Ed.] *Problemy patofiziologii i terapii shizofrenikov.* (Problems of physiopathology and therapy in schizophrenia.) *Trud. tsentral. psikhonevrol. Inst.*, 1938, 10.—15 papers by Protopopov and his students. The central theme is the hypothesis that schizophrenia corresponds to the hypnotic state experimentally produced by Pavlov, and the contributions deal with experimental verification of the hypothesis and its implications for treatment. French summaries.—L. J. Stone (Sarah Lawrence).

5360. Protopopov, V. P. *Printsip i metody okhranitelnoi terapii.* (Principles and methods of rest therapy.) *Trud. tsentral. psikhonevrol. Inst.*, 1938, 10, 104-114.—The author criticizes prevailing regimes in mental hospitals, with their stimulation to activity and mingling of patients. Such stimulation is held to be particularly questionable in the light of the experimental work of the author's laboratory, which indicates that the central nervous system in acute schizophrenia is in a state of functional weakness. Such facts cause the author to feel that the schizophrenic patient needs complete repose; separation from other patients in small rooms; and if necessary prolonged artificially induced sleep. Large wards, the ill-conceived notion of "no constraint," etc., merely reinforce the morbid process. Summary in French.—L. J. Stone (Sarah Lawrence).

5361. Puca, A. *La psicologia sperimentale nei suoi rapporti con la patologia.* (Experimental psychology in its relationships with pathology.) *Riv. sanit. sicil.*, 1936, 24, 470-485.—R. R. Willoughby (Brown).

5362. Reifenstein, E. C., & Davidoff, E. *The treatment of alcoholic psychoses with benzedrine sulfate.* *J. Amer. med. Ass.*, 1938, 110, 1811-1812.—W. J. Brogden (Johns Hopkins).

5363. Reinhold, J. *Psychotherapie.* (Psychotherapy.) In Bumke & Foerster, *Handbuch der Neurologie*, 1936, 8, 628-708.—The author discusses critically the philosophical tenets of psychotherapy as well as its content, its limitations, and the mixture of rational and irrational factors. He includes the systems of Freud, Adler, von Hartingberg, Prinzhorn, and Jung, and devotes some attention to the methods of suggestion, psychoanalysis, and psychagogy.—P. L. Krieger (Leipzig).

5364. Reinsch, C. *Über die alkoholischen Geistesstörungen in den Jahren nach dem Krieg* (nach

dem Krankenstand der Psychiatrischen und Nerven-klinik Nürnberg). (Alcoholic psychoses in the years following the war, as seen in the Nürnberg psychiatric and nerve clinic.) Erlangen: K. Döres, 1937. Pp. 22.—R. R. Willoughby (Brown).

5365. Schatner, M., & O'Neill, F. J. Some observations in the treatment of dementia praecox with hypoglycemia. *Psychiat. Quart.*, 1938, 12, 5-41.—C. R. Atwell (Boston Psychopathic Hospital).

5366. Schilder, P. The psychological effect of benzedrine sulphate. *J. nerv. ment. Dis.*, 1938, 87, 584-587.—Benzedrine may be used in the treatment of neuroses. It certainly will not cure a neurosis, but it will be helpful from the symptomatologic point of view and may help to bring forward important material in the course of the analytic treatment. Two cases are cited.—C. R. Atwell (Boston Psychopathic Hospital).

5367. Schwarz, R. Blood pressure and pulse rate in prison psychosis. *J. nerv. ment. Dis.*, 1938, 87, 556-558.—179 cases of dementia praecox compared with 213 cases of prison psychosis in regard to blood pressure and pulse rate yielded the same average values.—C. R. Atwell (Boston Psychopathic Hospital).

5368. Silberstein, A. G. Xeroderma pigmentosum with mental deficiency: a report of two cases. *Amer. J. Dis. Child.*, 1938, 55, 784-791.—Associated with lesions of the skin were abnormalities of the speech and gait and marked mental deficiency. The possibility of degeneration of the central nervous system analogous to the degenerative lesions of the skin is suggested.—W. J. Brogden (Johns Hopkins).

5369. Singer, H. D. Psychosis and the central autonomic nervous system. *J. Amer. med. Ass.*, 1938, 110, 2048-2053.—The term *psychosis* may profitably be used to designate active disorder in behavior resulting from structural damage of the central machinery of autonomic integration, specifically dynamic or "energy" disorders. The term *psychoneurosis* may, in contrast, be used to designate maladjustments (psychogenic) to life situations, and when used in this sense will include some examples of what to-day are grouped as psychoses. There is an essential difference between the symptoms produced by the illness, which includes the fact of psychosis, and those which express the form of the psychosis. The former are determined by the nature and location of structural damage and the latter by the personality of the patient who is ill. It is the form of the psychosis which is of paramount value in the study of personality.—W. J. Brogden (Johns Hopkins).

5370. Steinmann, I. Genealogische Ermittlungen in 4 Familien mit Westphal-Wilsonscher Pseudo-sklerose; neurologische und psychische Besonderheiten im klinischen Bild bei 4 erkrankten Geschwisterpaaren. (The genealogical data in four families with a pseudo-sclerosis of Westphal-Wilson; neurological and psychic peculiarities in the clinical picture of four pairs of afflicted siblings.) *Arch.*

Psychiat. Nervenkr., 1936, 105, 513-538.—The hereditary pattern, and hence the mode of inheritance, of Wilson's disease is very similar in the four families. If we add the typical symptoms, which are much alike, it is necessary to conclude an identity of origin. However, the neurological state and the psychic state present great differences, even within a fraternal pair. The cerebral manifestations, being independent of hereditary factors, are variable and not systematized. The psychic anomalies are manifestations of dispositions latent in mental illnesses.—(Courtesy *Année psychol.*)

5371. Tonn, W. Halluzinatorisch-paranoide Psychosen bei Encephalitis epidemica. (Hallucinatory-paranoid psychoses in epidemic encephalitis.) Gütersloh i. W.: Thiele, 1937. Pp. 28.—R. R. Willoughby (Brown).

5372. [Various.] The treatment of schizophrenia by insulin shock; cardiazol sleep treatment. *Amer. J. Psychiat.*, 1938, 94, Supplement. Pp. x + 354.—R. Goldman (Boston Psychopathic Hospital).

5373. Wallin, J. E. W. Directories of psycho-educational clinics. *Soc. Frontier*, 1938, 4, 291-292.—"The directory of the recommended or approved clinics and bureaus in which careful individual or clinical studies of atypical children are made should be widely circulated irrespective of whether the director is a member of the American Psychological Association, the American Association of Applied Psychologists, the Psychological Corporation, or the American Medical Association, provided he is a qualified expert in his field of concentration."—M. Keller (Brown).

5374. Wolfson, J. N. Psychiatric aspect of head injuries. *Psychiat. Quart.*, 1938, 12, 137-175.—C. R. Atwell (Boston Psychopathic Hospital).

5375. Woods, W. L. Language study in schizophrenia. *J. nerv. ment. Dis.*, 1938, 87, 290-316.—Analysis of the language of a large group of schizophrenic patients showed poverty of precise, crystallized, ideational thought; and a tendency to great vagueness and empty phrases, to much platitude, which tendency at times leads to eccentric speech, or to a style that is stiff and rigid. Schizophrenic speech is characterized by varying degrees of egocentricity. The essentially metaphorical nature of much of the schizophrenic's speech is impressive. The transition from metaphor to projection is a gradual one and shows itself first at a language level before it is intrinsically incorporated in thought. The primary nature of form in language shows itself in that it is retained when the meaning is lost.—C. R. Atwell (Boston Psychopathic Hospital).

5376. Yablonskaya, V. V., & Zherebtsova, A. G. Vliyaniye stimulyatsii k deyatelnosti na techenie shizofrenii. (The effect of stimulation to activity on the course of schizophrenia.) *Trud. tsentral. psikhonevrol. Inst.*, 1938, 10, 115-132.—The effect of occupational therapy on the evolution of schizophrenic psychoses was observed in 14 female patients in an acute state. Each was observed independently for 2-3 months, from 5 min. to 3 hours a day. The

results show the psychopathological picture changed only during the work periods themselves, and not necessarily in the direction of amelioration. Work therapy alone, without the simultaneous use of other therapeutic measures, in no case modified the course of the disease or did anything but regulate the conduct of the patients for a certain period. In view of Pavlov's and Protopopov's views that in schizophrenia the nervous system is in a weakened state the authors do not recommend recourse to work therapy in acute schizophrenia. Summary in French.—*L. J. Stone* (Sarah Lawrence).

5377. Yamamura, M. *Über Menschenscheu. Beitrag zur Genese der magischen Übertragung.* (On shyness. A contribution to the genesis of magic transference.) *Arb. Psychiat. Inst. Sendai*, 1936, 5, 45-85.—A male patient aged 19 years suffering from schizophrenic shyness accompanied by erythrophobia is discussed. It is assumed that erythrophobia corresponds to the conflict between ego and super-ego, while schizophrenia is a reflection of the conflict between the ego and the external world. Further, we see that in the latter there is an ego-regression which greatly inhibits the patient's adaptation.—*R. Kuroda* (Keijo).

5378. Yamamura, M. *Über Stimmungswechsel bei einer Hysterika.* (On swings of mood in a hysteric.) *Arb. Psychiat. Inst. Sendai*, 1937, 6, 1-32.—A girl of 16 years who has suffered from hysterical swings of mood has built a family romance in which she believes she is not the child of her parents but of her uncle. It was found by the author that the romance was a defense reaction against a strong father complex and that the swings of mood represent masculine protest; i.e., she became irritable when there appeared a wish for a penis, and gay when she imagined she had one.—*R. Kuroda* (Keijo).

[See also abstracts 5109, 5222, 5250, 5283, 5292, 5386, 5423, 5477, 5489, 5494, 5531, 5599, 5602.]

PERSONALITY AND CHARACTER

5379. Benjamin, J. D., & Ebaugh, F. G. *The diagnostic validity of the Rorschach test.* *Amer. J. Psychiat.*, 1938, 94, 1163-1178.—Previous attempts to investigate the reliability and validity of the Rorschach test by means of statistical methods are criticized. Comparisons of the Rorschach diagnosis and the clinical diagnosis were made in 50 cases; the results showed that the Rorschach test possesses a high degree of diagnostic validity.—*R. Goldman* (Boston Psychopathic Hospital).

5380. Bratt, N. *Noget om det Rorschachske formtydningsforsøg og dets praktiske anvendelse.* (About the Rorschach configuration experiment and its practical application.) *Ugeskr. Laeg.*, 1938, 100, 534-537.—This is a general explanation of method and procedure in the administering of the Rorschach test, illustrated by practical examples. It is claimed that this test will reveal deeper layers of personality and that one will arrive at a concentrated picture of general methods of reaction. A warning is

sounded, however, that the instrument is inexact, that the interpretation of results calls for an examiner who is thoroughly familiar with the normal and pathological mind, psychotechnical methods, etc., and that the test should be used mainly as a supplement to other forms of investigation.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5381. Collier, R. M., & Emch, M. *Introversion-extraversion: the concepts and their clinical use.* *Amer. J. Psychiat.*, 1938, 94, 1045-1075.—"An analysis of the literature on introversion and extraversion since the appearance of Jung's *Psychological Types* has revealed wide variation in the use of these terms. Confusion has furthermore arisen due not so much to redefinition as to erroneous restatements of original authors." Items from 7 representative I-E tests (Neymann-Kohlstedt, Bernreuter, Allport A-S reaction study, etc.) were classified by psychologists and psychiatrists according to the degree of I or E the item seemed to express. There appeared to be considerable variation of opinion as to the traits described by the items. Two of the tests and a third test made up of 90 items from the remaining tests were given to groups of liberal arts and medical school students. Statistical analyses of these data are given. "Interpretation of I-E test scores, it would seem, depends not only upon the particular test, but upon the variation in concepts which the individual testers bring to the scores."—*R. Goldman* (Boston Psychopathic Hospital).

5382. Feder, D. D., & Mallett, D. R. *Validity of certain measures of personality adjustment.* *J. Amer. Ass. colleg. Registr.*, 1937, 13, 5-15.—Five characteristics differentiating the well adjusted from the maladjusted were drawn up from a study of 21 college freshmen sent to the psychopathic hospital for treatment. Records of three freshman groups, given respectively the Thurstone personality schedule, the Woodworth-House mental hygiene inventory, and the Bell adjustment inventory, were studied in the light of school records. The authors conclude that paper-and-pencil personality questionnaires of this type have doubtful validity for the discovery and diagnosis of maladjustment and are not adequate substitutes for the personal or psychiatric interview.—*F. G. Allen* (Brown).

5383. Gandine-Stanton, D. *A study of failure.* *Character & Pers.*, 1938, 6, 321-334.—The sense of failure is not present in the first year of life, is usually found by the fourth year, and should certainly be present by the end of the sixth in all normal children. Anticipation of failure is one of the most common causes of objective failure. While it is true that serious failure may bring serious consequences, some experience of failure is essential for balanced development, if only to aid in the appreciation of success. 38 references are listed.—*M. O. Wilson* (Oklahoma).

5384. Göbber, K. H. *Blutgruppe und Typus.* (Blood group and type.) *Z. angew. Psychol.*, 1937, 53, 19-47.—Presenting a questionnaire and Rorschach test to 102 persons (39 women, 63 men)

between the ages of 18 and 60, the author obtained characteristic psychological differences between the four blood groups O, A, B and AB. The blood test was made after grouping the subjects on the basis of the psychological tests. Although the types obtained are not identical with those of Kretschmer some overlapping occurs. A 41-title bibliography is given.—G. F. J. Lehner (Vermont).

5385. Hadley, E. E. The psychoanalytic clarification of personality types. *Amer. J. Psychiat.*, 1938, 94, 1417-1430.—The obsessive and the schizoid types of personality are redefined after a "very cursory glimpse at some of the considerations bearing on a scientific typology of developmental stages and the theory which seems to give it an explanation in terms that lend new meaning to many of the earlier psychoanalytic findings."—R. Goldman (Boston Psychopathic Hospital).

5386. Hylkema, G. W. De Rorschach-test bij schizofrenen. (The application of the Rorschach test to schizophrenes.) *Ned. Tijdschr. Psychol.*, 1938, 6, 1-15.—A general discussion of the Rorschach technique, with special emphasis on its application to schizophrenic patients. The psychogram of a hebephrenic patient is analyzed in detail.—H. Beaumont (Kentucky).

5387. Kahn, E. Adjustment and its limits. *Amer. J. Psychiat.*, 1938, 94, 1277-1290.—Adjustment is a never ending process rather than something static. The potentialities and capacities of the organism determine the limit of its adaptability. The individual has to make a threefold adjustment: to himself (self-adjustment), to his situation (passive adjustment), and to adjust the situation to himself (active adjustment). All three aspects of adjustment are present whenever a person is adjusting himself socially.—R. Goldman (Boston Psychopathic Hospital).

5388. Kantor, J. R. Character and personality: their nature and interrelations. *Character & Pers.*, 1938, 6, 306-320.—"Summarizing, we may say that when the facts of psychology are regarded as concrete stimulus-response interactions, all psychological traits are alike in principle. Accordingly, character traits may be regarded as a class of activities developed in the individual's lifetime and conditioned by innumerable social, personal, economic, and historical circumstances. The class of character traits is therefore co-ordinate with every other trait-class under the general rubric of personality. Personality is the collective name for all traits, no matter how they are classified for particular purposes. To make character traits a unique series co-ordinate with personality is to inject a conventional belief into what should be described as objectively occurring events." 23 references are listed.—M. O. Wilson (Oklahoma).

5389. Mierke, K. Die wesenswandelnde und wesensformende Kraft des Kriegserlebnisses. (The character-changing and character-forming power of military experiences.) *Beih. Z. angew. Psychol.*, 1938, 79, 1-27.—Drawing upon historical sources

and personal communications of soldiers, the author discusses the transformations of character consequent upon military training, particularly actual war experiences.—G. F. J. Lehner (Vermont).

5390. Schultze, F. E. O. Eine Theorie der Persönlichkeit. (A theory of personality.) *Z. pädag. Psychol.*, 1938, 39, 96-99.—A summary of the author's theory published in *Z. angew. Psychol.*, 1937, accompanied by a diagram.—M. E. Morse (Baltimore).

5391. Thomson, W. A. An evaluation of the P. Q. (personality quotient) test. *Character & Pers.*, 1938, 6, 274-292.—The P. Q. test was administered to 259 high-school children at Mooseheart, Illinois, and the results may be summarized thus: (1) a statistically reliable sex difference was found between the *r*'s for self-determination on the one hand and both achievement and intelligence on the other, (2) individuals with high P. Q.'s have a slight advantage in academic competition, (3) P. Q.'s seem to be more dependent upon environmental than upon hereditary factors, (4) there seems to be little difference between self-determination and extraversion scores, (5) in most instances sub-trait scores are in essential agreement with ratings by the dean of men in selecting boys with greater or less amounts of each trait (but there was less agreement for the girls so rated by the dean of women), (6) there is no statistical evidence for the assumption that low P. Q.'s are associated with problem behavior, and (7) a few observations concerning the influence of the Mooseheart institution upon the personality of children associated with it were not verified. 4 tables and numerous references are included.—M. O. Wilson (Oklahoma).

5392. Vernon, P. E. The assessment of psychological qualities by verbal methods. *Rep. industr. Hlth Res. Bd. Lond.*, 1938, No. 83. Pp. vi + 132.—This survey treats "of the methods used by psychologists for obtaining records of the verbal attitudes and affective judgments of people either about themselves, about other people, or about their environment," providing the methods are capable of quantitative treatment. There are included group surveys of attitudes and interests, such as voting, rating methods, ranking, and paired comparisons; tests and scales for measuring attitudes of individuals, such as Thurstone's attitude measurements; assessment of human traits by ratings and indirect measures secured from ratings, such as judging ability; self-ratings and personality questionnaire tests, such as tests of psychoneurotic tendency, introversion-extraversion, and ascendance-submission; word association methods and interest blanks, such as the Pressey X-O tests; and the multiple-factor analysis of vocational interests. There are an extensive list of references and an index.—C. N. Cofer (Brown).

5393. Wohlfahrt, E. Die Interessenforschung als Hilfsmittel der Persönlichkeitsdiagnose. (The measurement of interest as an aid to personality diagnosis.) *Beih. Z. angew. Psychol.*, 1938, 79, 118-131.

—The interests of an individual as expressed verbally and in action are considered as diagnostic measures of personality of value in personnel selection for military purposes.—G. F. J. Lehner (Vermont).

[See also abstracts 5179, 5326, 5338, 5403, 5424, 5457, 5488, 5530, 5586, 5612.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

5394. [Anon.] Recent research on speech. *J. Amer. med. Ass.*, 1938, 110, 1676.—W. J. Brogden (Johns Hopkins).

5395. Bartholomew, W. T. A survey of recent voice research. 1937 *Music Teach. nat. Ass.* (Oberlin, O.), 1938, 115-138.—19 pages devoted to a survey of the field followed by a bibliography of 103 titles.—P. R. Farnsworth (Stanford).

5396. Bartlett, F. C. The co-operation of social groups. *Occup. Psychol.*, 1938, 12, 30-42.—Three lines of research in social co-operation are suggested: (1) study of such limited communities as the country village, the town suburban district, the factory, the city office, the school, the church, and the university, in which first-hand observation of the conditions which facilitate or hinder co-operation may be made; (2) experiments in social co-operation of novel types among such groups; (3) experiments in remembering significant events in descriptions of social occurrences. Two complete illustrations of the last type of research are given.—H. Moore (Mt. Holyoke).

5397. Berguer, G. Un mystique protestant. Auguste Quartier-la-Tente. (A protestant mystic: Auguste Quartier-la-Tente.) *Arch. Psychol., Genève*, 1937, 26, 1-145.—Quartier died in 1936 at the age of 89. From the beginning of his mystical conversion he habitually wrote down accounts of his experiences, struggles, and inspirations. The author gives numerous extracts from these journals dated from 1903 to 1913, and then takes up Quartier's mysticism, which he calls "Christocentrism," a mysticism which is essentially protestant. The main characteristics are a feeling of the presence of Christ, of instability, of euphoria, of unpredictability, and of ineffability. Special sections deal with the general structure of the crises and of the ecstasies; the biological basis of the mystical process in the light of various theories (the sexual instinct, combative instinct, etc.); the symbolism of introversion against which Quartier struggled; certain obsessional formulae used voluntarily by Quartier; and his religious convictions. Portrait.—M. R. Lambercier (Geneva).

5398. Bernard, W. S. Student attitudes on marriage and the family. *Amer. sociol. Rev.*, 1938, 3, 354-361.—Attitudes related to sex, marriage, and the family were obtained for 500 University of Colorado students by a questionnaire and interview method. Results are presented in terms of the frequency of "yes" or "no" response to questions, with the sex of the student the only variable introduced. The investigation is discussed in relation to social change.—I. L. Child (Yale).

5399. Beth, K. Drei Gesetze der ontischen und phyletischen Wandlung der Religiosität. (Three laws of ontogenetic and phyletic change in religious feeling.) *Z. ReligPsychol.*, 1938, 11, 1-13.—"First Law. At a given moment, only a definite quantity of psychic energy is at the disposal of an individual, for all his efforts. This definite and limited quantity has to be divided among the various psychical departments pursuant to their needs and demands. Second Law. That state of tension which is caused by the temporary stress of non-religious energies tends to re-establish a state of equipoise under the control of the religious energy. Whenever another mental disposition gains a prevailing influence, a tension is caused again by the disturbing of the psychical equilibrium. Third Law. It is through psychic leaps that the various shapes and intensities of the religious attitude come into existence, and so the eventful fate of mankind's religion in general, a single function (or department of interests) being dominant."—P. L. Krieger (Leipzig).

5400. Blättner, F. Über das Verhältnis der Generationen. (The relationship of the generations.) *Z. pädag. Psychol.*, 1938, 39, 113-128.—Blättner questions whether the relationship of the younger to the older generation is one of following or enmity, and reviews the so-called youth movements of the past and present centuries. The German is the only genuine and desirable one. It is politico-utopian, a revolution of the relationship between young and older men, and one of the greatest turning points in history. This is the first generation which has ever grown up without the guidance of the preceding—a rising of a whole generation possessed of a common consciousness of youth and its historic mission. Its decisive character-forming influences are the army and war, its representative the soldier. The older generation, conscious of its own failure in the post-war crisis, has begged it to take over the reformation of society. It has solved the father-son conflict.—M. E. Morse (Baltimore).

5401. Blau, A. Grundgedanken zur vergleichenden Völkerpsychologie. (Principles of comparative social psychology.) *Beih. Z. angew. Psychol.*, 1938, 79, 148-162.—The author discusses the importance of knowing for military purposes the characteristics of a people, such as their likes and dislikes, their ideals, ambitions, needs (emotional and otherwise), their temperament, etc.—G. F. J. Lehner (Vermont).

5402. Block, M. Die völkerpsychologische Struktur Südosteuropas als Beispiel einer völkerpsychologischen Untersuchung. (The social-psychological structure of southeastern Europe as an example of socio-psychological investigation.) *Beih. Z. angew. Psychol.*, 1938, 79, 162-186.—The author considers the Balkans in the light of their geographical and political location, their racial heritage, their religious, intellectual and social interests, and their speech and literature.—G. F. J. Lehner (Vermont).

5403. Bogardus, E. S., & Lewis, R. H. Social life and personality. New York: Silver, Burdett, 1938. Pp. ix + 581. \$1.80.—The major theme is the

influence of social life upon the development of personality. The book consists of three parts: the nature of personality, types of social life, and social control and adjustment. The first part deals with the problems of personality in the making; the second part is concerned with different types of social life, such as family life and welfare, play and recreation, the educational process, industries and economics, significance of community life, and art, covering seven out of the total ten chapters; the third part contains chapters on social control and social adjustment. The book is intended to be used as a textbook for high school students. Each chapter is supplemented and provided with a preview, illustrations, thought questions, case studies, and a list of references for further study.—*K. S. Yum* (Chicago).

5404. Borchers, O. J. *The psychology of music in relation to music education. 1937 Music Teach. nat. Ass.* (Oberlin, O.), 1938, 67-78.—18 researches are discussed.—*P. R. Farnsworth* (Stanford).

5405. Briggs, E. S. *How adults in Missouri use their leisure time. Sch. & Soc.*, 1938, 47, 805-808.—Personal interviews with one in every 500 inhabitants in all parts of Missouri revealed the following data in regard to the use of leisure time: 39% have hobbies, the percentage increasing with the size of the community, youth of the individual and amount of education. Decreasing with age are movie attendance, dancing, card playing, entertaining friends, listening to the radio, and athletics. Unaffected by age is church attendance, which claims more time than any other activity, and attending meetings, concerts and lectures. Few adults (10-20%) participate in athletics. 40% of those who read newspapers do so for recreation and relaxation. 60% have read no books for 6 months. Sex differences are small.—*M. Lee* (Chicago).

5406. Bristol, M. C. *Handbook on social case recording. Univ. Chicago soc. Serv. Monogr.*, 1936, No. 36. Pp. xii + 219. \$1.50.—*R. R. Willoughby* (Brown).

5407. Cantril, H., & Sherif, M. *The kingdom of Father Divine. J. abnorm. soc. Psychol.*, 1938, 33, 147-167.—The provision of a certain material comfort, and the promise of security, prosperity, and health, are explanation enough for the faith of many followers of Father Divine. "Father" gives meaning to the environment in which they live. Complexity, confusion, hopelessness, and purposelessness are changed into simple understanding, peace, happiness, and a faith in the abstract principles embodied in the person of "Father." His movement serves the same psychological function as the Townsend Plan, Nazism, and other such mass movements.—*C. H. Johnson* (Boston Psychopathic Hospital).

5408. Carhart, R. *Two-room technique in the treatment of stuttering. J. Speech Disorders*, 1938, 3, 105-112.—Presentation of arguments for the two-room technique and suggestions for its use in the treatment of stutterers.—*C. V. Hudgins* (Oberlin).

5409. Chandler, A. R., & Barnhart, E. N. *A bibliography of psychological and experimental*

esthetics, 1864-1937. Berkeley, Calif.: Univ. Calif. Press, 1938. Pp. 190 (mimeographed).—There are included 1739 references, with author index. The nine sections include the following: summaries, surveys, and bibliographies; theory of psychological esthetics and general works; psychology of esthetic response, talent, and creation; color (includes preference studies and color phenomena); lines, forms, and pictures (includes affective reactions and testing artistic ability); empathy; language arts; humor; and music (includes appreciation and experience; preferences for tone, intervals and chords; tonality; consonance and dissonance; rhythm; musical capacity, talent, and creation; performance; musical memory). An appendix gives references to works in related fields in psychology and art.—*E. N. Barnhart* (Cleveland Museum of Art).

5410. Chapin, F. S. *New trends in social research—some hypotheses and some sociometric scales. J. educ. Sociol.*, 1938, 11, 561-568.—The author suggests as a valuable research technique the use of "sociometric scales that give us readings on the social situation, on the neighborhood, on the environment of the community," and hence "supply the means whereby we may identify a natural recuperative social process, because they enable us to compare the individual with the community trend or norm." Selected references on specific sociometric scales are appended.—*F. D. McTeer* (Wayne).

5411. Darlington, H. S. *An instance of primitive psychotherapy. Psychoanal. Rev.*, 1938, 25, 205-208.—Among the Zulu a ritual dominated by sexual symbolism is employed to free a widow from pathogenic fantasies about her deceased husband.—*R. R. Willoughby* (Brown).

5412. Demiashevich, M. J. *The national mind; English, French, German.* New York: American Book Co., 1938. Pp. 520. \$3.50.—*R. R. Willoughby* (Brown).

5413. Ducasse, C. J. *The esthetic object. J. Phil.*, 1938, 35, 322-331.—The esthetic object is directly "object" always in the sense of epistemological object, not in the sense of ontological object. The contention of the noetic theories of the esthetic object, such as Stace's, that the character of an esthetic object consists in a particular structure, is false. There is evidence that epistemological objects can be esthetic objects no matter what epistemic structure they have, and that esthetic experience need not consist only of cognitive feeling.—*J. G. Miller* (Harvard).

5414. Eckstein, L. *Der Begriff des Stiles als charakterologische Kategorie.* (The consideration of style as a characterological category.) *Beih. Z. angew. Psychol.*, 1938, 79, 72-91.—Employing literary style (analyzed from the standpoint of diction, sentence structure, etc.) as a criterion of measurement, the author seeks to differentiate between "true" Aryans and "foreign" individuals.—*G. F. J. Lehner* (Vermont).

5415. Ehrhardt, A., & Klemm, O. *Rasse und Leistung auf Grund von Erfahrungen im Felde der*

Eignungsuntersuchung. (Race and performance as determined by vocational aptitude tests.) *Z. angew. Psychol.*, 1937, 53, 1-19.—The analysis of vocational aptitude records obtained by the Department of Labor in Leipzig on 1000 14-year-old boys and 500 male adults with an average age of 35 indicated certain racial differences between the following six groups, arranged in descending order on the basis of total average score: Phalic, western, northern, east Baltic, eastern, and Dinaric. Great variability is shown on individual tests, and some indication of a differential rate of maturation.—G. F. J. Lehner (Vermont).

5416. Fernberger, S. W., & Speck, F. G. **Two Sioux shields and their psychological interpretation.** *J. abnorm. soc. Psychol.*, 1938, 33, 168-178.—Both of the shields have hoops, deerskin, otter skin, eagle down, and red paint. Thus each shield has a group of symbols the function of which is to fortify the wearer in a conviction of his own protection and invulnerability as well as in his own aggressive ability. Psychologically this effect is more emotional than intellectual. The "web" shield interposes only magic, whereas the stiff shield is probably as well suited for physical protection as any that could be made from native material.—C. H. Johnson (Boston Psychopathic Hospital).

5417. Gallegos, J. M. **La rotación de los grupos sociales y su sentido.** (The succession of social groups and its meaning.) *Rev. Psicol. Pedag.*, 1937, 5, 289-304.—A society is dynamic common action by integrated groups subordinate to a higher reality. To control society is to seize its activity and direct it in this undertaking, which is always oriented toward the future. Society is carried on through the dictatorship of one group, which temporarily becomes the protagonist of history. It attains its hegemony through violence, fiction, or messianic claims. It predominates only so long as it is actually superior to other groups and accomplishes the common social task. When it ceases to do this it becomes sterile, complacent and reactionary, and the leader of the opposition assumes leadership. Nevertheless every historical movement has some non-temporal values. Society obeys a dictatorship because submission provides a new means of self-realization. Each group represents one of the possible forms of existence. A succession of groups is necessary for the development of these forms; each creates and brings forward a different type of individual, the total of which is the profile of humanity.—M. E. Morse (Baltimore).

5418. Genna, G. **Grundumsatz und Lebensablauf der Rassen.** (Basic changes and life courses of races.) *Z. Rassenk.*, 1938, 7, 209-217.—A preliminary study on the determination of differences in the life courses of the various human groups.—P. L. Krieger (Leipzig).

5419. Greene, T. M. **Beauty and the cognitive significance of art.** *J. Phil.*, 1938, 35, 365-380.—R. R. Willoughby (Brown).

5420. Haack, T. **Das Rechts-Links-Problem und die Bewegungsrichtungen der bildenden Kunst.** (The right-left problem and the directional tendencies in creative art.) *Z. angew. Psychol.*, 1938, 54, 32-39.—The author ascertains, upon a comparison of works of Western and Eastern art, that the directional tendency of right-handed Western artists is opposite to that of right-handed Eastern artists (from left to right and right to left, respectively). This is also seen in the fact that a Western artist usually signs his picture on the lower right corner, while an Eastern artist signs it on the lower left corner. Right-handedness as such can therefore not be considered as a causal factor in the difference in direction, which is probably based upon a socio-psychological factor making for a desire for "oneness with all" (Eastern) as compared with a desire for individuality (Western).—G. F. J. Lehner (Vermont).

5421. Harms, E. **Struktur-psychologische Analyse von Kunstwerken.** (Analysis of works of art by structural psychology.) *II Congr. int. Esthét. Sci. Art*, 1937. Paris: Felix Alcan. Pp. 1-4.—The author argues that artistic productions can be best understood when analyzed from the structuralist point of view.—M. Keller (Brown).

5422. Hartge, M. **Graphologie in der Pädagogik und Berufsberatung.** (Graphology in pedagogy and vocational counseling.) *Z. angew. Psychol.*, 1938, 54, 92-127.—The investigation is concerned with two problems, the diagnosis of intelligence and that of character, by graphological means. 100 boys 14-15 years of age were used for both problems. The graphological results were checked against the ratings of teachers for both intelligence and character, through personal ratings, a questionnaire, and health records. In about two thirds of the cases handwriting had predictive value for intelligence. A specific list of script characteristics indicative of higher intelligence vs. those of lower intelligence is given. In general the character traits of children, though in part ascertainable through graphology, show great instability.—G. F. J. Lehner (Vermont).

5423. Hedenberg, S. **Van Gogh. Om hans sjukdom och konst.** (Van Gogh. On his illness and art.) *Svenska Läkartidn.*, 1938, 35, 510-524.—This is a general critical review of all available literature concerning Van Gogh's illness and art, in which the author arrives at the same conclusion as did the Norwegian psychiatrist Hans Evensen in 1925 (*Z. ges. Neurol. Psychiat.*), viz., that in all likelihood Van Gogh suffered from epilepsy.—M. L. Reymert (Mooseheart Laboratory for Child Research).

5424. Hehlmann, W. **Handschrift und Erbcharakter.** (Handwriting and hereditary character.) *Z. angew. Psychol.*, 1938, 54, 128-137.—The inheritance of psychological (type) characteristics can be detected by graphological methods. The psychograms of identical twins show greater similarity than do those of fraternal twins. Methodological

difficulties are discussed.—G. F. J. Lehner (Vermont).

5425. Hell, F. J. *Physiologische und musikalische Untersuchungen über die Singstimme der Kinder.* (Physiological and musical investigations on the singing voice of children.) *Arch. ges. Phonet.*, 2. Abt., 1938, 2, 65-102.—"After a survey of the literature concerned with the compass of the child's voice from its third to its fifteenth year, pitch, purity of speaking and singing voice, limits of range and register, timbre, and change of voice at puberty, the author's own investigations with ten boys whose voices were changing are given. There follow the results of investigations undertaken with 44 choir boys of the Regensburger Domspatzenchor aged 10-14, their weight, size, details as to heredity, special characteristics, speaking and singing voices, physiological and musical compass and register, all arranged and illustrated by means of graphs. It is interesting to note the very low number of throaty and hoarse voices, their great range, and the altogether normal physical condition obtaining."—P. L. Krieger (Leipzig).

5426. Herring, E. P. How does the voter make up his mind? *Publ. Opin. Quart.*, 1938, 2, 24-35.—R. R. Willoughby (Brown).

5427. Herskovits, M. J. *Acculturation; the study of culture contact.* New York: Augustin, 1938. Pp. 155. \$2.00.—Part I traces the development of the concept. The treatment is limited to the more strictly field-anthropological studies. Part II critically analyzes 14 acculturation studies already published. An "Outline [of topics and problems] for the Study of Acculturation," prepared with Linton and Redfield, is appended, which indicates the possible psychological mechanisms involved. Bibliography of nearly 200 titles.—M. A. Mook (Brown).

5428. Johnson, W. The role of evaluation in stuttering behavior. *J. Speech Disorders*, 1938, 3, 85-89.—The phenomenon of stuttering is schematized as a series of responses on the part of the stutterer; the initial response is aroused by a social stimulus and each successive response is stimulated by the preceding response. Each of the responses in the sequence is evaluated by the stutterer, i.e. reacted to either positively or negatively. The development of stuttering is a spiral process in which evaluation plays a most important role, determining whether or not the subject will continue the abnormal speech behavior by accepting it, or reject it by stopping it or modifying it. The latter alternative is a negative evaluation and leads to the development of normal speech.—C. V. Hudgins (Oberlin).

5429. Johnson, W., & Ainsworth, S. Studies in the psychology of stuttering. X. Constancy of loci of expectancy of stuttering. *J. Speech Disorders*, 1938, 3, 101-104.—20 stutterers were asked to read silently an unfamiliar prose passage and mark the words on which they would expect to stutter if they were asked to read the same passage aloud five minutes later. The experiment was repeated later

using the same material. Results show that 52% of the 1012 words marked in the second reading were marked during the initial reading. The authors conclude that "expectancy of stuttering" as defined by this method is relatively constant as to locus under conditions which preclude the possibility of overt stuttering. "Any theory of stuttering which does not involve an adequate account of 'expectation of stuttering' does not, by virtue of that fact, involve an adequate account of stuttering."—C. V. Hudgins (Oberlin).

5430. Karlin, I. W., & Kennedy, L. Stuttering problem and suggested treatment. *Amer. J. Dis. Child.*, 1938, 55, 383-396.—R. R. Willoughby (Brown).

5431. Keilhacker, M. *Grundzüge des englischen Volkscharakters, aufgezeigt an einer psychologischen Untersuchung der Welt Gladstones.* (Fundamental English folk characteristics, as obtained from a psychological investigation of the world of Gladstone.) *Beih. Z. angew. Psychol.*, 1938, 79, 187-208.—The author discusses the life and time of Gladstone, with special reference to political and socio-psychological conditions as manifested in the period of great colonial expansion.—G. F. J. Lehner (Vermont).

5432. Keller, A. G. *Brass tacks.* New York: Knopf, 1938. Pp. 233. \$2.00.—The author explains briefly what men have thought and how they have behaved about their basic needs—food and shelter, sex and marriage, peace, law and order.—R. R. Willoughby (Brown).

5433. Kimmell, M. Studies in the psychology of stuttering. IX. The nature and effect of stutterers' avoidance reaction. *J. Speech Disorders*, 1938, 3, 95-100.—39 autobiographical documents written by stutterers were examined to determine the type of avoidance reactions and the effect of these reactions on adjustment. The results were analyzed and classified according to their effects upon the behavior of the subjects during speech, in the home, in school, on the job, toward the opposite sex, and alone. "In general these avoidances tend to delay, increase, or prevent speech in certain given situations, and they tend to limit the range of the individual in social experience."—C. V. Hudgins (Oberlin).

5434. Kornhauser, A. W. Attitudes of economic groups. *Publ. Opin. Quart.*, 1938, 2, 260-268.—Persons were classified by income and occupation. An attempt was made to discover what attitudes on political and social issues might correlate with occupations and income classifications. The author found that the middle income group tended to agree with the lower group on questions pertaining to the distribution of wealth, etc., and with the upper group on questions like unionism and socialization of industry. On questions of a nature designed to evoke satisfaction or dissatisfaction with conditions, almost as much dissatisfaction is found in the middle as in the lower income groups. Lawyers and engineers reflected the attitudes of business, rather than independent professional attitudes. College

professors were nearer the workers than engineers and lawyers. Other relationships are noted.—*R. L. Schanck* (Kenyon).

5435. **Künstle, G.** *Die Abwanderung der Begabten vom Dorf.* (Migration of the intelligent from the village.) *Z. Rassenk.*, 1938, 7, 281-289.—In the Black Forest village studied by H. Koch, the migrants to the city were chiefly the intelligent among the population, and consequently the quality of school work deteriorated. Among persons born between 1870 and 1919, however, the proportions between intelligent and unintelligent emigrants were more nearly equal and school attainments did not suffer. Nevertheless, the limitation of the family (2-4 children) among the intelligent in this village is a great menace.—*P. L. Krieger* (Leipzig).

5436. **Kupky, O.** *Pädagogische Volkskunde.* (Folk study in education.) *Z. pädag. Psychol.*, 1938, 39, 65-71; 128-137.—The paradigm of the peculiar German culture is the peasant, who transmits it through his arts and crafts, songs and dances, festivals, piety and magic, and particularly his ideals of honor, truth, heroism, self-sacrifice, and universal justice. The first duty of folk study is to teach the special nature of Germans through the family, the mother tongue, children's plays, social, youth, and defensive organizations, and the army. As applied to schools, the new popular education is ruled by feeling, authority and tradition. It is animistic, intuitive and organic. Instruction is limited to the native place and its values; no universal history, world geography or foreign languages are allowed, but natural science is not excluded.—*M. E. Morse* (Baltimore).

5437. **Leibl, M.** *Grafologia psicologica.* (Psychological graphology.) Milan: Ulrico Hoepli, 1935. Pp. 248. L. 12.—An introductory chapter covers the history of the question and the fundamental principles involved in graphological interpretations. The four sections of the book proper deal with man in various aspects as related to graphological expression: (1) man with respect to his development (the writing of children with relation to their inherited disposition, environment, and education; writing and different temperaments; and writing in relation to development from the time of childhood to old age); (2) man from the point of view of occupation and creation, that is, man in relation to practical, intellectual, and intuitive intelligence; (3) and (4) man and delinquency (lying, thieving, and deceit and crime in general), man and disease (organic and psychological disturbances as revealed in writing), changes in mood in the normal and nervous subject, and writing in the insane.—*L. Canestrelli* (Rome).

5438. **Lüderitz, H.** *Das Gemeinschaftserlebnis in der vordersten Linie.* (The social experiences of front line service.) *Beih. Z. angew. Psychol.*, 1938, 79, 28-42.—The soldier at the front not only is a participant in a group but comes to be a necessary integral unit, realizing his oneness with a "larger society." He reacts subjectively to the realities

of war as much as in overt combat.—*G. F. J. Lehnner* (Vermont).

5439. **Lukas, J.** *Der Ton in den Sprachen des zentralen Sudan.* (Tone in the languages of the central Sudan.) *Arch. ges. Phonet., I. Abt.*, 1938, 2, 96-107.—"As in most languages of the Sudan, so in those of the central Sudan attention to pitch is of supreme importance, as it forms a constructive element of the syllable. We have to face the difficulty of differentiating between semantic and grammatical pitch. This is easier with the isolating languages, where the word-roots are obvious, than with the central languages, rich in affixes. Hence we consider the pitch-sequences of a word. Such are exemplified by words of Kauni in Bornu, of Logone and Mandara in the northern Cameroons, of Maba and Mubi in Wadai. Sometimes it becomes impossible to determine a grammatical form without reference to pitch. The latter always characterizes form. Finally the author explains contradiction, as in the case of affixes. In Kanuri, for example, their pitch may depend upon the pitch of the root-word to which they refer. Conditions are different in Ewe, where fossilization into affixes is hardly noticeable."—*P. L. Krieger* (Leipzig).

5440. **Lundholm, H.** *Mark Antony's speech and the psychology of persuasion.* *Character & Pers.*, 1938, 6, 293-305.—The two main principles in belief-engenderment are (1) the primitive one, which says that man believes in the reality of that which he strongly desires, and (2) the rational one, which states that he believes in the reality of that which conforms to his knowledge. Another principle, supported by some (McDougall, especially), but whose value is minimized by the writer, is (3) the one which says that belief is engendered by submission to authority. It is the purpose of this paper to show the relative weakness of the latter as compared with the other two. This is done through an analysis of the speeches of Brutus and Mark Antony. In short, Mark Antony's speech was effective because it employed primarily the first two of these, while that of Brutus was abortive because it gave more emphasis to the latter.—*M. O. Wilson* (Oklahoma).

5441. **Maddox, J.** *Studies in the psychology of stuttering. VIII. The role of visual cues in the precipitation of moments of stuttering.* *J. Speech Disorders*, 1938, 3, 90-94.—Data from 20 stutterers were obtained under two conditions, reading aloud to the experimenter, and looking at themselves in a mirror while reading. The frequency of stuttering is significantly increased when the stutterer observes himself in the mirror. These results show that there are "intermittent factors" which cause stuttering and that there is a relation between these factors and the frequency of stuttering moments.—*C. V. Hudgins* (Oberlin).

5442. **Males, B.** *Die Rassentypen bei den Serben und Kroaten.* (Racial types among the Serbs and Croats.) *Z. Rassenk.*, 1938, 7, 234-251.—The majority of the Serbs and Croats belong to the Dinaric group and have appropriate psychic charac-

teristics. The latter are also found in the other 16-18 racial types in this territory and have formed the ethnic characteristics of the entire population.—*P. L. Krieger* (Leipzig).

5443. McCormick, T. C. On the amount of error in sociological data. *Amer. sociol. Rev.*, 1938, 3, 328-332.—The author points to the desirability of estimating the probable amount of error in results of social research, and lists the types of error that may occur.—*I. L. Child* (Yale).

5444. Melching, L. Umvolkung als psychologische Problem. (Racial change as a psychological problem.) *Z. angew. Psychol.*, 1938, 54, 1 38-140.—This is a report of the first annual meeting of the German institute for the racial study of "non-resident" Germans, dealing with the problem of the "de-Germanizing" changes occurring in those who have emigrated from Germany.—*G. F. J. Lehner* (Vermont).

5445. Mersand, J. Radio makes readers. *Engl. J.*, 1938, 27, 469-475.—The nature and extent of the influence of radio programs upon the leisure reading of school children was the subject of this study. 150 boys in the third year of high school, from working-class homes and representing many racial backgrounds, were used. Responses to specific questions revealed: that 146 were regular listeners; that special programs were selected; that radio programs in papers and magazines were consulted extensively; that it was the entertaining quality that appealed; that 72 read plays first after hearing them dramatized over the radio; that other books by the same authors were sought and read as the result of radio introductions.—*D. Bailey* (Mt. Holyoke).

5446. Monjar, E. Racial distance reactions. *Sociol. soc. Res.*, 1937, 21, 559-564.—269 persons (native white middle-class workers or students) ranked ten racial and national groups in the order of their preference for them as neighbors. The rankings and characteristics of the groups as given fell into four distinct levels: a general uniformity of favorable responses for the Irish, German, and Swedish groups; a much smaller proportion of favorable answers for Jews and Italians; Armenians, Japanese and Mexicans appear at the next level with a still greater prevalence of unfavorable characteristics mentioned; the lowest level comprises Filipinos and negroes. The author suggests that a study of the characteristics ascribed to these different groupings indicates at what points leaders must labor in order to make their races less subject to unfavorable reactions.—*O. P. Lester* (Buffalo).

5447. Mueller, J. H. Present status of the cultural lag hypothesis. *Amer. sociol. Rev.*, 1938, 3, 320-327.—The types of phenomena to which the term "cultural lag" has been most frequently applied involve only a spurious lag which may exist solely in relation to the percipient's personal or class social philosophy. Perceptions of such supposed cultural lag are themselves valuable social data, but the social scientist should reserve use of the term for

those phenomena which conform to criteria set down by the author.—*I. L. Child* (Yale).

5448. Murphy, G., & Likert, R. Public opinion and the individual. A psychological study of student attitudes on public questions, with a retest five years later. New York: Harper, 1938. Pp. x + 316. \$3.00.—A simplified method of measuring general attitude orientation in the fields of internationalism, imperialism, the negro problem, and the economic order, involving the assigning of consecutive numerical values to various alternatives and having demonstrated validity, is described. When a set of these scales were given to a large number of students who also wrote autobiographies it was found that factors such as the personalities of parents, the student's reading habits, etc., appeared as important determinants of radical or conservative tendencies, while most of the more easily described objective factors commonly considered did not. An intensive study of the attitudes and of many other personal characteristics of volunteer groups showed that motion pictures and photographs could give valuable supplementary information which tends to confirm the results of verbal methods. General dissatisfaction with current American institutions correlated with radicalism. A retest study 5 years later showed a considerable shift toward radicalism, which appeared to be an attempt to see the social situation broadly rather than an individual protest against economic distress.—*J. McV. Hunt* (Brown).

5449. Orr, F. W. Voice for speech. New York: McGraw-Hill, 1938. Pp. 294. \$2.00.—A practical guide to voice training which diagnoses voice deficiencies and their causes, offers a corrective program for their elimination, and explains the anatomical, physiological and psychological factors involved, is given.—*R. R. Willoughby* (Brown).

5450. Ortmann, O. The psychology of music in relation to musicology. 1937 *Music Teach. nat. Ass.* (Oberlin, O.), 1938, 48-56.—Musicology supplies the psychology of music with acoustical, historical, bibliographical, and other data. The method of the psychology of music is primarily qualitative and subjective; that of musicology is quantitative and objective. The former is concerned with the how and the why of data, the latter with the data themselves.—*F. R. Farnsworth* (Stanford).

5451. Porterfield, A. L. Education and race attitudes. *Sociol. soc. Res.*, 1937, 21, 538-543.—Replies to a questionnaire, based on the Bogardus Social Distance Scale for racial and nationality groups and presented in the summers of 1935 and 1936 to 913 students at Southeastern Oklahoma Teachers' College and to a group of 105 high-school students, reveal: (1) that friendliness for other races and nations does not grow as these students advance in the educational process unless direct attention is given to development of an appreciation of culture of other peoples, (2) that sociology students showed themselves somewhat more friendly than non-sociology students, (3) that sociology students who

were also students of religion were less given to prejudice than the sociology group taken as a whole, (4) that seniors graduating from college without courses in sociology were no more friendly to other nations than freshmen entering college, (5) that 42 degree teachers doing graduate work did not differ appreciably in their reactions from children of junior high school age except in attitude toward the Germans and the French.—O. P. Lester (Buffalo).

5452. Reschke, H. *Die Initiationsriten der Kiwai-Papua*. (The initiation rites of the Kiwai-Papuans.) *Int. Arch. Ethnogr.*, 1938, 35, 23-40.—P. L. Krieger (Leipzig).

5453. Robinson, C. E. Current research of the American Institute of Public Opinion. *Publ. Opin. Quart.*, 1938, 2, 274-275.—R. R. Willoughby (Brown).

5454. Robinson, C. H. Towards curing differential births and lowering taxes. *J. Hered.*, 1938, 29, 230-234.—The present tax burden levied to care for 15,000,000 people in good times, and 30,000,000 in poor times, imposes an "unseen guest at every table" among the still solvent, who are to that extent deprived of means for raising more children of their own. Government should establish its right to declare the permanently maladjusted State wards, and institute measures for limiting their reproduction: separation, segregation, birth control, and sterilization, as indicated by need and circumstance.—G. C. Schwesinger (American Museum of Natural History).

5455. Röckel, H. *Grundsätzliches zur Begabtauslese*. (Fundamentals in the selection of the gifted.) *Z. angew. Psychol.*, 1938, 54, 1-17.—This is a critical analysis of statistical procedures employed in individual and group selection.—G. F. J. Lehner (Vermont).

5456. Roucek, J. S. Social attitudes of native-born children of foreign-born parents. *Sociol. soc. Res.*, 1937, 22, 149-155.—Results of an oral questionnaire given to 150 descendants of foreign-born parents from Italian, Jewish, and Slavic origins showed that "generally, the Jewish students seemed to be more intelligent, more liberal in their thinking on universal and religious issues, and practically assimilated to American ideas and ways of living, than either of the other two groups. The Slavs seemed to be less intelligent than the Jews, less liberal in their thinking on universal questions, and extremely religious as well as not quite assimilated to Americanism. The Italians in intelligence appeared to be on a par with the Slavs, although they surpassed them in thinking on universal and religious problems, and they were markedly more assimilated to American life than the Slavs but less so than the Jews."—(Courtesy *Child Developm. Abstr.*).

5457. Schanck, R. L. Personality of individuals and the rural community pattern. *Rur. Sociol.*, 1938, 3, 159-171.—By the use of H. C. Beyle's technique of "cluster block analysis" the author has studied the personalities of about 160 persons residing in Elm Hollow, N. Y. 5 members of the com-

munity rated the others on 8 traits. When the patterns were analyzed it was found that 60% of the subjects resembled no other member of the community or at best only one other individual. The others were characterized as "bright, strong, socialized," "dull, conservative, weak, unsocialized," etc. Nine blocks (personality patterns) were found which contained 3 or more subjects. The author decides that the 2 most significant patterns might be called "strong" and "weak."—P. R. Farnsworth (Stanford)

5458. Scheidt, W. *Das Erbgefüge menschlicher Bevölkerungen und seine Bedeutung für den Ausbau der Erbtheorie*. (The hereditary structure of human populations and its meaning for the completion of the theory of heredity.) Jena: Fischer, 1937. Pp. 59. RM 3.60.—This paper discusses especially the problem of polymery, the frequency of hereditary stigmata in certain families, and questions concerning the relations between psychology and heredity.—P. L. Krieger (Leipzig).

5459. Shaw, H., Jr. The lost art of reading. *Engl. J.*, 1938, 27, 401-413.—A questionnaire study is used as the basis for a general discussion of the problem of the decrease in reading. Such factors as motion pictures, radio, pictorial newspapers, and magazines are shown to hamper or prevent the development of reading skills. Since these factors are here to stay they must be made to serve rather than block more extensive and better selected reading. The author makes some suggestions for accomplishing this.—D. Bailey (Mt. Holyoke).

5460. Stöltzing, H. *Blutreinheit und Blutmischungen in ihrer tieferen Bedeutung*. (The deeper meaning of pure and mixed blood.) *Z. pädag. Psychol.*, 1938, 39, 99-105.—In pure-blooded animals and man, the best are chosen to continue the race, the decisive thing being not reproduction but improvement of the species. The "best" in every race differs according to its ultimate purpose. Mixed races are static, without purpose or future, but they clamor for any régime offering them a foothold. None of the admixtures which the German race has suffered has been able to halt its progress onward and upward, but a considerable part of its best youth has been sacrificed to fighting for the race's existence. The Germans and a few millions of related peoples are the last reserve of creative humanity, and the influence of uncreative modern man must be kept away from their youth.—M. E. Morse (Baltimore).

5461. Thomsen, A. What voters think of candidates before and after election. *Publ. Opin. Quart.*, 1938, 2, 269-274.—Using a Thurstone scale of affect, the investigator checked the enthusiasm of voters for a candidate during the period before and after election. The degree of favorable feeling toward one's candidate was greater than the unfavorable affect toward the rival candidate. After an election there are changes in the conformity of support for a candidate which are not similar to the changes in the conformity of opposition. From the data it is clear that the two kinds of conformity are different in

psychology, and a change in one does not necessarily accompany a change in the other.—*R. L. Schanck* (Kenyon).

5462. *Trachtenberg, D. Zur vergleichenden Sozialpsychologie der Sitte.* (The comparative social psychology of morality.) Würzburg: Triltsch, 1938. Pp. 180.—*R. R. Willoughby* (Brown).

5463. *Trendelenburg, F., & Trendelenburg, W. Über die Ermittlung der Verschlusszeit der Stimmritze aus Klangkurven von Vokalen.* (Determination of the time of closure of the vocal cords from the sound curves of vowels.) *S. B. Preuss. Akad. Wiss.*, 1937. Pp. 15.—From the vowel curves, sung or spoken in a deep voice alone or in combination with consonants (words or phrases), one can determine very accurately the period during which the vocal cords are open, in addition to the whole curve separate curves are made of the higher frequency ranges of the partial vibrations. In favorable cases the latter curves show in every phase of vibration of the fundamental tone two maxima, denoting the opening and closing of the cords. In both these processes there occurs a bombardment of high-frequency vibrations in the middle part of the larynx above the cords.—*P. L. Krieger* (Leipzig).

5464. *Ungern-Sternberg, R. v. Heiratsalter und Häufigkeit der Ehescheidung.* (Age at marriage and frequency of divorce.) *Z. Rassenk.*, 1938, 7, 296-297.—In Germany, marriages in which the partners are under 25 years old appear to be the most likely to end in divorce.—*P. L. Krieger* (Leipzig).

5465. *Van Riper, C. A study of the stutterer's ability to interrupt stuttering spasms.* *J. Speech Disorders*, 1938, 3, 117-119.—"Fifteen stutterers were used in a reaction time experiment to determine whether they could respond to an auditory signal by cessation of speech attempt and abdominal protrusion as quickly during stuttering as during free normal speech, or silence. No differences were found between stuttering and normal speech, but significant differences appeared between silence and normal speech."—*C. V. Hudgins* (Oberlin).

5466. *Vetter, A. Ausdruckswissenschaft.* (Science of expression.) *Z. angew. Psychol.*, 1937, 53, 233-250.—This is a discussion of Klages' attempts to arrive at reliable criteria of expression through graphology.—*G. F. J. Lehner* (Vermont).

5467. *Vinay, J. P. Diphtongues croissantes en patois cachois.* (Rising diphthongs in the dialect of Caux.) *Arch. ges. Phonet., Abt. I.*, 1938, 2, 89-95.—"The chief phonetic characteristic of Norman dialects is the presence of diphthongs accompanied by tones. These diphthongs fall into two classes: (1) the phonemic, falling diphthongs, which have important morphological and syntactical functions; (2) the non-phonemic, rising diphthongs, which occur only in stressed syllables, and correspond to long vowels in similar positions in French. Their distribution affects pre-eminently the rhythm and intonation of the Norman phrase, which may be compared, from that point of view, with the English

phrase. A tendency to diphthongize long vowels may be observed also in districts where the dialect has completely died out, e.g., Le Havre. The tones have no separate function."—*P. L. Krieger* (Leipzig).

5468. *Weinert, H. Kampf den Sprachfehlern.* (The fight against defects of speech.) Leipzig: Armanen-Verlag, 1938. Pp. 118. RM 2.60.—The author, who is a teacher of deaf mutes, gives a summary of speech defects, their origin and elimination. He discusses numerous methods of treatment, including instrumental techniques, "sound-gestures" as a help in articulation and lip-reading, and the hand position in the German mouth-hand system. Many pictures are included.—*P. L. Krieger* (Leipzig).

5469. *Wenzl, A. Graphologie als Wissenschaft.* (Graphology as science.) Leipzig: Quelle & Meyer, 1937; *Arb. Psychol. Inst. Univ. München*, 1937, 8, Pp. 223.—The author discusses the basic problems of graphology and its present status; he gives a comparison of the systems of Klages, Sauder, Pulver, Sylvus, and Christiansen, and their relation to psychology as a science.—*G. F. J. Lehner* (Vermont).

5470. *West, R. The function of the speech pathologist in studying cases of dysphonia.* *J. Speech Disorders*, 1938, 3, 81-84.—Brief discussion of the duties of speech pathologists in diagnosing and handling cases of voice disorder. Pathological cases should be recognized and turned over to laryngologists for treatment, hysterical cases should be treated in co-operation with a psychiatrist, and non-pathological cases are the sole responsibility of speech pathologists, who must be able to make an adequate diagnosis before assuming this responsibility.—*C. V. Hudgins* (Oberlin).

5471. *Williamson, C. Recent advances in acoustics and their application to the psychology of music.* *1937 Music Teach. nat. Ass.* (Oberlin, O.), 1938, 62-66.—A brief outline is given of studies which are classified as follows: the acoustics of auditoriums, that of musical instruments including the voice, and that of recording and reproducing systems.—*P. R. Farnsworth* (Stanford).

5472. *Wilson, M. E. The psychology of music in relation to musical esthetics.* *1937 Music Teach. nat. Ass.* (Oberlin, O.), 1938, 57-61.—Wilson divides the field into three parts: (1) Studies regarding the external object which stimulates the esthetic experience divide into two subclasses, (a) the investigation of the physical phenomena (tones), and (b) the analysis of the total effects of the compositions and instruments. (2) Research dealing with the transmission of the esthetic experience from the source to the listener can be subdivided into two subclasses, (a) that which has to do with the physical transmission of music, and (b) that dealing with the non-physical aspect of the transmission of esthetic experiences. (3) Studies which aim to analyze the listener and his reaction are also of two types, (a) one that deals with the physical characteristics and

limitations of the listener, and (b) one which treats of his total reactions.—*P. R. Farnsworth* (Stanford).

5473. **Wilson, T. G.** The development and disorders of speech. *Irish J. med. Sci.*, 1937 (March), 135ff.—The author describes the development of speech in an infant and child. Hearing, deaf-mutism and other problems are considered. The intelligence of the child must be considered, especially if training of a deaf child is to be carried out. The mechanical and functional disorders, such as nasal speech, stuttering, and lisping, are taken up. Treatment and speech training are considered in detail.—(Courtesy *Child Developm. Abstr.*).

5474. **Witty, P. A.** Reading for meaning. *Engl. J.*, 1938, 27, 221-229.—A study of reading habits of 500 adults revealed that silent reading was not prominent, and that adults have yielded to the influence of commercial exploitation. Stress on reading skill as an end, commonly stressed at present, makes the mistaken assumption, in the author's view, that the differences are chiefly mechanical and that drills will remedy these. Reading for meaning goes far beyond this into the realm of language arts and communication, and requires expanding and continuous development in mastery of meanings and values. Schools are guilty of distorting this process from the first grade.—*D. Bailey* (Mt. Holyoke).

5475. **Zimmermann, R.** Stimmlippenlängen bei Sängern und Sängerinnen. (The lengths of the vocal cords in male and female singers.) *Arch. ges. Phonet.*, 2. Abt., 1938, 2, 103-130.—"W. Trendelenburg's apparatus for measuring laryngoscopic images has been improved by an attachment which greatly facilitates measuring. It has already been used for measuring lengths of the vocal cords from the anterior commissure to the tip of the vocal process of the arytenoid cartilage. The subjects were 50 singers, men and women. Soprano voices of high quality and efficiency never yielded greater lengths than 18 mm., the least being 14 mm. Good tenor voices never went beyond 22 mm. The maximum length of the vocal cords was 25 mm. (bass voices). Mezzosoprano and contralto voices ranged from 18 to 22 mm. The method proves particularly useful for training and checking the faculty of estimating magnitudes in ordinary laryngoscopic work. After some practice estimates departed but little from measurements. Incidentally, good voices of every type revealed a widely gaping sinus Morgagni."—*P. L. Krieger* (Leipzig).

[See also abstracts 5089, 5098, 5104, 5176, 5203, 5208, 5223, 5262, 5290, 5296, 5300, 5318, 5328, 5334, 5342, 5375, 5387, 5440, 5487, 5540, 5546, 5557, 5572, 5603, 5608, 5612, 5616, 5618, 5619.]

CRIME AND DELINQUENCY

5476. [Anon.] Researches reported in theses accepted for higher degrees. *Brit. J. educ. Psychol.*, 1938, 8, 201-203.—A study by Christina Hyde of juvenile delinquency in Birmingham and the Mid-

lands reports statistics on delinquency and facilities and methods of handling delinquents, and discusses conditions and causes of juvenile delinquency. Fluctuations of attention at or near the thresholds for sound, vision, and weight lifting are analyzed by Zok Tsung Chen. The findings are that although calculated mean periods may vary with the stimulus, the true underlying periods remain constant within the geometric system, whatever the stimulus level.—*K. M. Cowdery* (Stanford).

5477. **Belby, J.** La delincuencia de los débiles mentales. (Delinquency among the feeble-minded.) *Psiquiat. y Criminol.*, 1937, 2, 713-724.—It was ascertained that, of 1000 delinquent minors, 30.6% were feeble-minded. Weak mentality is considered a predisposing cause of crime. Institutions for the study and training of the feeble-minded are urged.—*R. M. Bellows* (U. S. Employment Service).

5478. **Bonger, W. A.** An introduction to criminology. London: Methuen, 1936. Pp. 178. 6/-.—*R. R. Willoughby* (Brown).

5479. **Bromberg, W., & Keiser, S.** The psychology of the swindler. *Amer. J. Psychiat.*, 1938, 94, 1441-1458.—"The swindler is a hysterical individual who obtains substitute gratification through living out a high social position such as physician, nobleman, entrepreneur." In the swindler himself, the offense often means an unconscious gratification of a neurotic conflict. "Neurotic conflicts of a psychosexual nature form an important aspect of the swindler's personality."—*R. Goldman* (Boston Psychopathic Hospital).

5480. **Cantor, N.** A disposition tribunal. *J. crim. Law Criminol.*, 1938, 29, 51-61.—The proceedings involved in the determination of the guilt or innocence of a defendant must be differentiated from the disposition proceedings. The former function should be left to the courts and the latter to a "disposition tribunal" composed of such specialists as a judge, the trial judge, and representatives of psychology, psychiatry, social work, and criminology, who should decide upon the character of penal treatment and the time of release, except possibly for certain types of criminals.—*L. Ackerson* (Illinois Institute for Juvenile Research).

5481. **Gruhle, H. W.** Motiv und Ursache in der Kriminologie. (Motives and cause in criminology.) *M Schr. KrimPsychol.*, 1936, 27, 113-131.—*P. L. Krieger* (Leipzig).

5482. **Kapp, F.** Über die Beobachtungsabteilungen bei Gefangenenanstalten der Justizverwaltung. (Observation sections in penal institutions of the Department of Justice.) *Z. psych. Hyg.*, 1937, 10, 3-15.—Observation sections are used by the German courts more often than previously. They need modern directorship and a special scientific training for their personnel.—*P. L. Krieger* (Leipzig).

5483. **Kerscher, K.** Verbrechen und Verwaisung. (Crime and orphanhood.) *Krim. Abh. Exner*, 1937, H. 29. Pp. 57.—*P. L. Krieger* (Leipzig).

5484. Kinberg, O. *La prophylaxie du crime.* (The prophylaxis of crime.) *Acta psychiat., Kbh.*, 1938, 13, 21-39.—Crime is a form of social maladjustment, the result of a dynamic interaction between the physical, psychological, and psychopathological forces of an individual and his environment. The causative factors vary in each individual case. A reasonable prophylaxis of crime should, first of all, discover the underlying causes in each case and attempt to alleviate the potential social motivating forces.—F. J. Witmer (Mooseheart Laboratory for Child Research).

5485. Lange, J. *Kriminologische Untersuchungen an Genialen.* (Criminological investigations on genius.) *M Schr. KrimPsychol.*, 1936, 27, 16-25.—P. L. Krieger (Leipzig).

5486. Leonhardt, C. *Haben Unschuldsbeteuerungen Beweiswert?* (Have assertions of innocence value as proof?) *Kriminalistik*, 1938, 12, 124-126.—Although assertions of innocence do not generally justify the conclusion that the accused is innocent, they do have considerable value if the character type of "qualified falsifier" can be excluded. This is a definite type combining intelligence, suavity, the impression of frankness, and the ability to lie smoothly, quickly, and decisively. Only a qualified falsifier can simulate innocence successfully, especially if confronted suddenly. Protestations of innocence are evaluated in the light of the suspect's past history, age, degree of education, mode of defense, and behavior during the first examination. In most cases it is impossible satisfactorily to exclude the falsifier type. Points especially to be noted are the manner and exact wording of the first declaration, whether the accused seems surprised and blurts out remarks with his denial, or whether they follow after a short reflection.—M. E. Morse (Baltimore).

5487. Lottier, S. *Distribution of criminal offenses in metropolitan regions.* *J. crim. Law Criminol.*, 1938, 29, 37-50.—Plotting the ratio of known crimes to population for various distances from the center of Detroit reveals a "gradient" of decreasing incidence with distance from the city up to at least 200 miles, except for an increase in the suburban area 20-25 miles from the center of the city.—L. Ackerson (Illinois Institute for Juvenile Research).

5488. Marchand, J. G., Jr. *A personality questionnaire given to inmates of a state prison.* *J. crim. Law Criminol.*, 1938, 29, 90-96.—A brief oral disguised questionnaire to elicit information concerning responsiveness, euphoria, despondency, and neutralness was given during the psychometric examinations to 50 inmates entering a state prison; some results are stated.—L. Ackerson (Illinois Institute for Juvenile Research).

5489. Overholser, W. *Ten years of co-operative effort.* *J. crim. Law Criminol.*, 1938, 29, 23-36.—A description is given of the work of the Committee on Psychiatric Jurisprudence appointed jointly by the American Bar Association and American Psy-

chiatric Association ten years previously.—L. Ackerson (Illinois Institute for Juvenile Research).

5490. Richter, W. *Zur Psychologie der Brandstiftung.* (The psychology of arson.) Weida i. Thür: Thomas & Hubert, 1938. Pp. 63.—R. R. Willoughby (Brown).

5491. Roesner, E. *Mörder und ihre Opfer.* (Murderers and their victims.) *M Schr. KrimBiol.*, 1938, 29, 161-185; 209-228.—Uniform records should be kept in all countries concerning murderers. These records should describe not only the person of the murderer, but also the circumstances, the victims, and the motives. Only in this way can sound international statistics be obtained.—P. L. Krieger (Leipzig).

5492. Roth, —. *Dieb aus Sammelleidenschaft.* (Theft due to a passion for collecting.) *Kriminalistik*, 1938, 12, 112-113.—A respected and artistic physician took up as a hobby the making of reproductions of antique furniture and then the collection of old pieces. On two occasions he stole medieval religious carvings, after having told the dealers that he wished to buy them. His explanation was that he was acting from the noble motive of preserving the inheritance of the German people from ruin.—M. E. Morse (Baltimore).

5493. Seibert, K. *Die Jugendkriminalität Münchens in den Jahren 1932 und 1935.* (Criminality of youth in Munich in 1932 and 1935.) *Krim. Abh. Exner*, 1937, H. 26. Pp. 63.—P. L. Krieger (Leipzig).

5494. Syz, H. *Phylobiological aspects of forensic psychiatry.* *J. crim. Law Criminol.*, 1938, 29, 76-89.—Criminal or delinquent manifestations are understood as symptomatic expressions of an action tendency that extends throughout the behavior structure of the community. Bibliography.—L. Ackerson (Illinois Institute for Juvenile Research).

5495. Taylor, N. M., & Schaffer, R. L. *Statistical survey of endocrinopathies among young delinquents.* *Endocrinology*, 1937, 21, 189-194.—R. R. Willoughby (Brown).

5496. Thomas, W. *Vorbeugende, sichernde und bessernde Massnahmen gegen rauschgiftsüchtige Rechtsbrecher.* (Preventive, precautionary and corrective measures for delinquent narcotic addicts.) *Kriminalistik*, 1938, 12, 102-106.—National Socialism places all drug addicts under the law against dangerous habitual criminals. The irresponsible but non-criminal are sent to curative or custodial institutions. The delinquent are committed to special institutions, in addition to punitive measures. Both classes are subjected to a sudden withdrawal cure, which is deliberately conducted so as to leave a horrible memory. Release from institutions is on probation, under both medical and police supervision. Relapses are about 20%.—M. E. Morse (Baltimore).

5497. Willbach, H. *The trend of crime in New York City.* *J. crim. Law Criminol.*, 1938, 29, 62-75.—Although the population above the age of 16 in

New York City during the years 1916 to 1936 increased 44.8%, the number of males arrested decreased 29.6%. The number of persons arrested is a better index sociologically than the number of crimes committed or reported.—*L. Ackerson* (Illinois Institute for Juvenile Research).

[See also abstracts 5281, 5318.]

INDUSTRIAL AND PERSONNEL PROBLEMS

5498. [Anon.] *Laufbahnbestimmungen für Wehrmachtpsychologen*. (Professional requirements for war psychologists.) *Z. angew. Psychol.*, 1937, 53, 261-264.—Both academic and practical requirements are listed.—*G. F. J. Lehner* (Vermont).

5499. *Bedford, T. Requirements for satisfactory ventilation and heating*. *Hum. Factor, Lond.*, 1936, 10, 246-254.—Sensations of warmth (the comfort zone) depend upon four factors: temperature, air movement, humidity, and radiation. None of the scales used as indices of warmth—the kata-thermometer, the globe thermometer, equivalent temperature, and resultant temperature—allow for all four thermal factors. A comfort zone for 86% of 2600 employees, voting on different temperatures, was found at an equivalent temperature of 58° to 66° F., an air temperature of 60° to 68° F., a globe thermometer reading of 62° to 68° F., and an effective temperature of 57° to 63° F. For satisfactory heating and ventilation the air should be moving and not warmer at head level than near the floor, the walls should be warmer than the air, and the heads of the workers should not be exposed to excessive radiant heat. There should be an air supply of from 17 to 20 cu. ft. per head per minute.—*H. Moore* (Mt. Holyoke).

5500. *Breyer, R. F. Marketing research for seniors*. *J. Marketing*, 1938, 2, 289-294.—The faculty of the Wharton School requires each senior student majoring there to complete a thesis based upon research. Some of these theses are in the field of marketing. The faculty is now considering some changes in the programs of outstanding students, so that they will be encouraged to make use of their intellectual traits.—*A. B. Blankenship* (Psychological Corporation).

5501. *Busatto, S., Volterrani, O., & Pontrelli, E. La partecipazione del pedone nella genesi degli accidenti stradali*. (The role of the pedestrian in traffic accidents.) *Arch. Antrop. crim.*, 1938, 58, 147-183.—22 pedestrians who had been victims of accidents, and a control group of 20 who had not been, were studied by means of personal histories, general medical examinations, tests of visual and auditory function, a measure of emotionality based on blood pressure changes, and several tests of reaction time. The findings are interpreted as pointing the way to a more accurate and objective determination of responsibility than is possible through testimony, proof of negligence, and the like.—*C. J. Herrick* (Pennsylvania).

5502. *Byng, E. S. Administration—a profession*. *Hum. Factor, Lond.*, 1936, 10, 381-392.—This address includes a definition and description of the functions and characteristics of administration, the qualities which the administrator should possess, and the types of training which prospective administrators should be given.—*H. Moore* (Mt. Holyoke).

5503. *Canuto, G. Contributo allo studio medico-legale degli infortuni della strada*. (Contribution to the medico-legal study of road accidents.) *Arch. Antrop. crim.*, 1938, 58, 184-194.—*C. J. Herrick* (Pennsylvania).

5504. *Dickinson, Z. C. American trends in industrial incentives*. *Occup. Psychol.*, 1938, 12, 17-29.—Lately there has been more emphasis on careful measurement of workers' output, and with it an increase in the use of simple wage plans and well formulated time allowances. These new emphases have been due to the sponsorship that company unions have given to job analysis as a basis for setting base rates, to the widespread use of man-rating scales, and to the increasing use of fatigue-reducing incentives (a new name for non-financial incentives). Smaller percentage differentials between the more and less skilled workers have resulted from the high minimum rates which the N.R.A. has sponsored, and this has accentuated the interest in the output of each individual worker.—*H. Moore* (Mt. Holyoke).

5505. *Emmett, W. G. A technical college course in industrial psychology*. *Hum. Factor, Lond.*, 1936, 10, 148-151.—This is an outline of a course given for four years in the County Technical College, Staffordshire, preparing the ground for "the propagation of good psychological conditions in the factory." Innate tendencies, factors affecting efficiency, incentives, motion study, training, and vocational guidance and selection formed the body of the course.—*H. Moore* (Mt. Holyoke).

5506. *Ferguson, H. H. Food industry: the investigation of consumers' taste preferences*. *Hum. Factor, Lond.*, 1937, 11, 399-405.—This is a discussion of the importance of research on taste preferences. The paired comparison method is the most satisfactory, but is often of no value because of the changed attitude of subjects when in the experimental situation, the manner in which samples interfere with one another, and the difficulty of getting subjects who are accustomed to tasting, instead of merely eating, their food.—*H. Moore* (Mt. Holyoke).

5507. *Fischer, G. H., & Ohnsorge, K. Über den Einfluss körperlicher Veranlagung auf das Persönlichkeitsbild*. (Concerning the influence of physical endowment upon personality.) *Beih. Z. angew. Psychol.*, 1938, 79, 51-72.—In the selection of men for various military duties it is important to consider both psychological and physical fitness.—*G. F. J. Lehner* (Vermont).

5508. *Gibson, R. L. Testing advertisements*. *Industr. Marketing*, 1938, 23, 13; 41.—The following methods are used to test the value of advertisements

before and after running: jury, split-run, direct mail, unaided recall, coupon, field investigations, sales area, historical, sales letter, and aided recall. Many companies using one or more of these tests succeed in making their products as well known as other companies which spend ten times as much, but do not use tested advertising. Testing advertisements checks, but does not replace, imagination and creative ability, and makes them productive rather than merely clever. The better the market research job the less the need for the advertising research job.—*H. Moore* (Mt. Holyoke).

5509. Hansen, —. *Die Stellung der Psychologie in der Lehre von der militärischen Erziehung.* (The position of psychology in a military education.) *Beih. Z. angew. Psychol.*, 1938, 79, 208-219.—The author discusses the importance of psychology in military training.—*G. F. J. Lehner* (Vermont).

5510. Harding, D. W. *Alternative capacities for typewriting.* *Hum. Factor, Lond.*, 1937, 11, 97-105.—Some typists acquire a rhythmical pattern, others do not. For one group intelligence is more important than manipulative ability; for the other group the reverse is true. Selection tests for typists should indicate capacity for introducing rhythm by co-ordinating strokes into new muscular unity, as well as probable speed in making a mere succession of strokes. The results from two tests, devised to evaluate these two aspects of typing capacity, are given.—*H. Moore* (Mt. Holyoke).

5511. Harding, D. W. *Varieties of work and leisure.* *Occup. Psychol.*, 1938, 12, 104-115.—A psychological account of any activity should include the satisfactions that its performance gives, the indirect incentives that are available, the vividness and importance of the task because of the incentives, and the degree of concentration the task demands. Both work and leisure should be described in more accurate terminology than the present methods of job analysis use.—*H. Moore* (Mt. Holyoke).

5512. Hunt, L. I. *The psychology of production planning.* *Hum. Factor, Lond.*, 1937, 11, 218-223.—This is a description of a plan used in a tool-making company for co-ordinating the sales and production departments. With the use of a planning board, a "tickler" file (a card index on which details of every order were kept), a daily conference with foremen, and planning slips to give a visible record of the total work on hand for each division and the daily program of each department, the following advantages were gained: delivery promises were more frequently kept, relations between sales and production departments were improved, rush orders were reduced, fewer orders became overdue, overhead charges were reduced, and foremen were relieved of a large amount of clerical work and were able to spend 10% more time on their proper tasks of supervision and inspection.—*H. Moore* (Mt. Holyoke).

5513. Karol, J. J. *Analyzing the radio market.* *J. Marketing*, 1938, 2, 309-313.—The author discusses two phases of radio research: the gross

measurements of the medium (what we know about the listening audience as a whole), and net measurements of radio (what we know about audiences for specific programs). Before the census of 1930 there were only guesses about the number of radios owned; even after this new studies had to be made by research agencies to keep up with the wide spread in radio ownership. Methods used to measure audiences for specific programs include the personal interview, the telephone survey, and electrical recording devices attached directly to the radio, which record the length of time spent listening to each station over a given period of time. The hours of listening are also recorded, so that specific program popularity can be measured. "Despite the variety of research methods used in the field of radio broadcasting, a rather remarkable agreement on certain basic results has been obtained."—*A. B. Blankenship* (Psychological Corporation).

5514. Katz, D. *A study of the taste of bread.* *Hum. Factor, Lond.*, 1937, 11, 210-217.—This is a description of some experiments in improving the flavor of bread. 4 experiments with 40 subjects each and one with 15 subjects used (1) flour baked in different ovens, (2) flour mixed with small quantities of dried milk, vegetable fat or whey, (3) flour to which was added a small quantity of sugar or lard, and (4) bread of different ages. The conclusions were: Samples baked by and the stale bread of experienced test-bakers were superior to those from commercial bakers. Bread containing 2% of vegetable fat was preferred to untreated bread or to bread containing 5% dried milk, but the sample containing 2% sugar was preferred to untreated bread or to bread containing 2% fat. Children preferred bread to which 5% milk was added and disliked bread treated with fat.—*H. Moore* (Mt. Holyoke).

5515. Katz, D. *The judgments of test bakers; a psychological study.* *Occup. Psychol.*, 1938, 12, 139-148.—This is a report of some experiments in judging doughs and a comparison of bakers' subjective methods and physicists' objective methods of examining doughs. Bakers describe dough body as having the following properties: stickiness, elasticity, firmness, extensibility; and judge these properties by the feel, temperature and appearance of the dough. Experiments showed that different bakers vary considerably in their judgment of doughs with good "body," and that most bakers rely on one property, stickiness, to judge the satisfactoriness of the dough.—*H. Moore* (Mt. Holyoke).

5516. Krantz, H. *Beitrag zur Bewertung der Berufsfähigkeit der an angeborenem Star Leidenden.* (Contribution to the evaluation of the work ability of persons suffering from congenital cataract.) *Schramberg: Gatzert & Hahn*, 1937. Pp. 17.—*R. R. Willoughby* (Brown).

5517. Maule, H. G. *Time and movement study in laundry work.* *Hum. Factor, Lond.*, 1936, 10, 351-359.—After a study of calender work on six machines and filming of some of the feeders, the

time of ironing handkerchiefs was reduced 50%, a waiting period of six hours per week on the part of girls feeding small work was eliminated, some tables were re-arranged, thus avoiding an unnecessary walk of twenty miles per week, and training methods were introduced.—*H. Moore* (Mt. Holyoke).

5518. **Mavor, J. B., & Longmuir, J. B.** A successful suggestion scheme. *Hum. Factor, Lond.*, 1936, 10, 278-283.—A suggestion scheme was instituted by Mavor and Coulson Ltd. in 1917, was opposed by the foremen until 1926, and then was discussed with the foremen; objections were overcome by expediting payments, offering special incentives, giving supplementary payments, and giving the idea considerable advertising. Since 1928 the suggestions offered by 1000 employees have averaged more than 2500 annually; more than one-third of these have been adopted. The procedure used in dealing with suggestions is described.—*H. Moore* (Mt. Holyoke).

5519. **Maynard, H. H.** Training teachers of marketing and research workers. *J. Marketing*, 1938, 2, 282-288.—The author reviews the program of training graduate students in marketing at Ohio State University, where students in this field can earn an M.A., M.B.A., or Ph.D. degree. The four ideals of a teacher are kept in mind in this training: (1) the teacher must be a social scientist in the broadest sense of the word, (2) he should have an interest in and a degree of skill in the techniques of marketing processes, (3) he should have teaching ability, and (4) he should be a productive scholar, in terms of research. Specific methods of training are discussed.—*A. B. Blankenship* (Psychological Corporation).

5520. **Meier-Müller, H.** Die medizinisch-psychologischen Voraussetzungen der Tauglichkeit als Militärfieger. (The medical-psychological premises of fitness in military flyers.) *Schweiz. med. Wschr.*, 1936, Part I, 149-152.—*P. L. Krieger* (Leipzig).

5521. **Miles, G. H.** Fatigue from the industrial point of view. *Hum. Factor*, 1937, 11, 8-15.—The mechanization of industry has raised a new group of fatigue problems. Proper attention to food and clothing supplement the solutions of the problem offered by good lighting, adequate ventilation and scientific movement study. Mental fatigue among executives could be reduced by a modified application of the principles which have been found effective in relieving the fatigue of the rank-and-file worker.—*H. Moore* (Mt. Holyoke).

5522. **Miles, G. H., Shaw, A. G., & Edgell, J. A.** Some modern developments of time and motion study. *Hum. Factor, Lond.*, 1937, 11, 264-272.—This is a summary of three lectures. Workers object to time study because (1) they have a natural resentment against unsolicited inquiries about their actions, (2) it is often concerned with personal allowances and degrees of fatigue, (3) it is sometimes used as a means of exploitation. Movement study, on the other hand, gives no indication of the volitional factors, nor of the effects of the movements on the person making them. Movement study should

precede time study, as it is impossible to determine the length of time required for a task until unnecessary operations have been eliminated, necessary operations are performed by the best and quickest methods, the conditions affecting the worker are adequate, and the equipment has been standardized.—*H. Moore* (Mt. Holyoke).

5523. **Mitchell, J. H.** An investigation of a packing process. *Hum. Factor, Lond.*, 1936, 10, 106-113.—This is a description of the methods used by the National Institute of Industrial Psychology in laying out the plan of an organization, in establishing working methods and proper lighting and ventilation systems, and in selecting and training personnel. A competitive bonus system preceded the introduction of a piece-rate system, and this is to be followed by a fixed-quota system.—*H. Moore* (Mt. Holyoke).

5524. **Mitchell, J. H.** The relief of eyestrain on a fine assembly process. *Hum. Factor, Lond.*, 1936, 10, 341-346.—68 workers in an electrical manufacturing concern were examined by an ophthalmic surgeon and were found to be suffering from accommodative asthenopia after 2½ to 3 hours' work, due to the necessity of constant complete accommodation of the eyes. Convex glasses were not used because of the inadvisability of disturbing the normal association between the mechanism of accommodation and that of binocular convergence. Instead, glasses were provided, or corrected, for those with defective vision, rest pauses were introduced, and a new type of lighting unit was introduced. The result was an increase of 19.5% in quantity of work and a decrease of 16.2% in number of rejected pieces.—*H. Moore* (Mt. Holyoke).

5525. **Moore, H.** The Institute's clerical test in the Westinghouse Electric Company. *Hum. Factor, Lond.*, 1936, 10, 221-224.—From three to seven parts of the American revision of the N.I.I.P. clerical test were found to be of value in selecting adequate workers for thirteen types of office work. A reclassification of the office force in terms of adequacy for the job in terms of the scores on different parts of the tests resulted in 28 changes, 90% of which were promotions, and a marked decrease in the number of errors in the payroll department.—*H. Moore* (Mt. Holyoke).

5526. **Morton, L. T.** A suggestion scheme that did not work smoothly. *Hum. Factor, Lond.*, 1936, 10, 273-277.—Opposition by foremen, complaints that foremen were stealing workers' ideas, the suspicion that recommendation for dismissal was due to the adoption of a suggestion that had been advanced, and the conflict between foremen's and management's ideas of candidates for promotion, were responsible for the abandonment of the suggestion system in one organization.—*H. Moore* (Mt. Holyoke).

5527. **Myers, C. S.** The recruitment and selection of personnel suitable for high administrative positions. *Hum. Factor, Lond.*, 1936, 10, 14-22.—This is a description of methods which the National

Institute of Industrial Psychology has found to be of value in selecting business executives from within and without the organization. Two instances are supplied in which the psychological techniques worked satisfactorily.—*H. Moore* (Mt. Holyoke).

5528. Nass, —. *Die Persönlichkeit des Kampfwagenführers.* (The personality of the tank driver.) *Beih. Z. angew. Psychol.*, 1938, 79, 131-148.—The personality of the tank driver is considered not only from the point of view of technical requisites but from that of the characterological requirements as determined from an analysis of tank tactics.—*G. F. J. Lehner* (Vermont).

5529. Raphael, W. *Grievances—their ascertainment and their alleviation.* *Hum. Factor, Lond.*, 1937, 11, 91-96.—This gives, with some illustrations, an account of the significant part that an outside consultant can play in discovering the sources of discontent among employees. The nature, contents of, and results from such interviews are given.—*H. Moore* (Mt. Holyoke).

5530. Rodger, A. *How people compensate or adjust themselves for lack of ability.* *Hum. Factor, Lond.*, 1937, 11, 385-393.—This is a summary of the manner in which people make amends for their lack of fitness for the occupations in which they are engaged. Compensations may be in physical appearance, the cultivation of special aptitudes, the development of unusual interest either in some aspect of the job or in some outside work, and in the development of one or more temperamental qualities. Illustrations of each form of compensation are given.—*H. Moore* (Mt. Holyoke).

5531. Rosenfield, M. *Industrial psychotherapy.* *Hum. Factor, Lond.*, 1936, 10, 360-365.—It is argued that the industrial psychotherapist should adopt the attitude and technique of the industrial psychologist, conform with the methods of Adolf Meyer, and institute mental-hygiene clinics in industry in the interests of the neurotic, so that they can continue profitable employment during their rehabilitation period.—*H. Moore* (Mt. Holyoke).

5532. Seymour, W. D. *The relations of industry and education.* *Hum. Factor, Lond.*, 1937, 11, 56-68.—This is a discussion of recent changes in the relationships between the educational system and industry in England. Junior technical schools outside London prepare students aged 13-16 for engineering, building, and the constructive trades; junior commercial schools offer training in shorthand, typewriting, a modern language, the elements of commerce, and economic geography; local technical colleges offer employees courses in engineering, chemistry, building, and the textiles, and award national certificates when the courses are completed. Similar plans are being developed for certificates in commerce. Many firms finance their own schools or pay the fees of their employees who attend technical schools or colleges.—*H. Moore* (Mt. Holyoke).

5533. Skilbeck, O. *Some psychological problems in the film industry.* *Hum. Factor, Lond.*, 1937, 11, 174-177.—The film industry differs from others

in its absence of routine, and because of this its psychological problems are different from those in other industries. The chief problems are irritation due to uncertainty, desperation born of enforced though remunerated idleness, the presence and easy development of instability, the irksomeness of long hours, and the presence of a considerable number of crushed and thwarted personalities whose hoped-for forms of self-expression can never be realized.—*H. Moore* (Mt. Holyoke).

5534. Stewart, A. F. *Industrial psychology and personnel management.* *Hum. Factor, Lond.*, 1937, 11, 305-309.—Labor management parallels the development of industrial psychology, applies its principles and uses its tools, particularly in selecting and training employees, selecting its instructors, and caring for the maladjusted worker.—*H. Moore* (Mt. Holyoke).

5535. Vernon, H. M. *The relation of alcohol to road accidents: a preliminary study.* *Hum. Factor, Lond.*, 1936, 10, 255-266.—Using the motor driving apparatus of the National Institute of Industrial Psychology, with a moving picture of a road the width of a car, 20 subjects were given driving tests 1 hour, $\frac{1}{2}$ hour, and immediately before, and $\frac{1}{2}$ hour, 1 hour, and $2\frac{1}{2}$ hours after, ingestion of 30 cc. of alcohol. The results from 22 trials on 15 subjects were compared with the results from 12 trials on 12 subjects who were not given alcohol. The alcoholic group averaged 5.7% less time and 12.5% more errors in each test. In a second series of tests the alcoholic group showed 50% more time and 28% more error variations than the control group.—*H. Moore* (Mt. Holyoke).

5536. Vernon, H. M. *Fatigue in industry.* *Hum. Factor, Lond.*, 1937, 11, 1-7.—The factors responsible for physical fatigue are the length of the working time, the character of the work, and the conditions under which the work is performed. Effective remedial factors are the introduction of rest pauses at regular intervals, the adoption of easy and rhythmical movements, an adequate heating and lighting system, and the reduction of noise or the use of ear defenders in factories where noise elimination is impossible.—*H. Moore* (Mt. Holyoke).

5537. Viteles, M. S. *Industrial psychology in Russia.* *Occup. Psychol.*, 1938, 12, 85-103.—This is a report, based on eight months' residence, of the scope, methods, and accomplishments of industrial psychology in the U. S. S. R. The most extensive use of psychological methods in selecting workers is made by the transport industry, but other industries, e.g. the chemical, combine selection methods with vocational guidance in their choice of employees. The validity of such work, however, is lessened because of the presence of political and social forces and the lack of use of the usual criteria of performance. The training system emphasizes the acquisition of skills and traits, but gives little attention to congenital differences, a neglect which is reflected in lack of attention to the problem of accident proneness. Fatigue studies and the introduction of rest

pauses have shown marked reductions in energy output and surprising production increases. Attempts to reduce work to simple repetitive tasks characterize the approach to the problem of the best method of work. "Complex brigades" of specialists take part in their experimental studies, and have the co-operation of laboratories. Non-financial incentives, all tending towards "voluntary socialist competition" are prominent. Trade unions support psychological work.—*H. Moore* (Mt. Holyoke).

5538. Wallace, N., & Travers, R. M. W. A psychometric sociological study of salesmen. *Ann. Eugen., Camb.*, 1938, 8, 266-302.—A group of specialty salesmen were studied over a period of several months. Their leaders were also studied. The methods of study employed included an interview, observation during training, and a psychological test battery. Various tests were found which discriminated the successful men from the failures. It was found that specialty salesmen tend to be highly obsessional. Their leaders are even more obsessional. The leaders tend to be a little more intelligent than the group they lead. Successful leaders were found to be more intelligent than those who had failed as leaders.—*N. Wallace*.

[See also abstracts 5152, 5157, 5163, 5196, 5197, 5246, 5266, 5281, 5401, 5554, 5589.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

5539. Abbott, A., & Wood, S. H. Vocational education and guidance in India. *Hum. Factor, Lond.*, 1937, 11, 355-361.—This is a summary of the reports of two committees which were appointed to recommend changes in the educational system in India. Three provinces were studied. The present system's weakness lies in too much emphasis on English, too great an idolization of literacy, and the lack of any co-ordination between the training and research in the educational system and national needs. The committees recommend more practical training in the elementary schools, more practical research in the universities, and the introduction of a system of vocational education and guidance patterned somewhat after that provided in the junior technical schools in England.—*H. Moore* (Mt. Holyoke).

5540. Ainaud, E. L'educació artística a l'escola. La música. El cant. La veu. (Art education in the school: music; singing; voice culture.) *Rev. Psicol. Pedag.*, 1937, 5, 305-333.—Ainaud discusses the historical development of methods of voice culture for the child and the function of music both in the schools and as an international bond. He outlines a theoretical and practical course for music teachers in elementary schools and a series of lessons. His system is based on the principles of the Hungarian laryngologist Mandl and the French musical educator Gedalge.—*M. E. Morse* (Baltimore).

5541. Anderson, I. H. Psychology and methods in the high school and college: education and psy-

chology. *Rev. educ. Res.*, 1938, 8, 19-24.—Literature of the period from January 1934 to July 1937 is reviewed. Studies having to do with student interests, student preparation in terms of prerequisite courses, study habits, and prognostic tests are discussed. Studies comparing the lecture method with other methods showed no significant statistical differences. Studies on problems of measuring the results of teaching and testing, such as frequency of tests, length of examinations, effect of knowledge of the form of the test to be used on preparation for it, and the teaching value of tests are cited. The author concludes that the studies reviewed contribute little that is new or significant. Evidence is found in practical situations, however, which confirms conclusions previously derived from laboratory situations.—*D. Bailey* (Mt. Holyoke).

5542. Ballard, P. B. The use of intelligence tests in selecting children for secondary schools. *Hum. Factor, Lond.*, 1937, 11, 83-90.—This is an account of the growth of the use of intelligence tests in examining children in the elementary schools in England for promotion to free places in the secondary schools and for scholarships. Approximately half the examining bodies use group tests, sometimes as supplements to academic examinations, sometimes for borderline cases, and in one case as a substitute for the academic examination. The theory underlying and the nature of such tests are discussed.—*H. Moore* (Mt. Holyoke).

5543. Barrett, E. R., Ryan, T. M., & Schrammel, H. E. Barrett-Ryan-Schrammel English test. Yonkers-on-Hudson: World Book, 1938. \$1.10 per package of 25.—This test (in 3 forms) is designed for use in high schools and in college classes as a measure of individual and class progress in the mechanics of English. Split-half coefficients of reliability for the single forms range from .91 to .94. The probable error of a score ranges from 3.1 to 3.3. Percentile norms are based on the testing of 31,937 high school students and 7472 college freshmen. The test requires 40 minutes working time and is accompanied by a quick-scoring key.—*M. Keller* (Brown).

5544. Bingham, W. V. Testing in vocational guidance. *Education*, 1938, May. Pp. 6.—As the number of children who continue their education beyond the early 'teens increases, more time is available for vocational decisions. Bingham suggests that these decisions can generally be made by the students themselves after they have consulted with friends and teachers. Especially helpful are cumulative records based on frequent objective tests. The trained vocational counselor should be able to devote his time to those who really need advice. Especially needed is some consideration of the changes that occur in abilities and interests of people as they mature.—*H. Schlosberg* (Brown).

5545. Brown, E. J., & Anderson, D. Vocational expectations of teachers college students. *Sch. & Soc.*, 1938, 47, 742-744.—A survey by questionnaire-check-list of the vocational expectations of all students in the Kansas State Teachers College in

1937 showed an increase in intention to teach from freshman to senior year. Men and upper class women prefer high school positions. About half of both men and women regard teaching as only a stepping stone to some other occupation. Business, engineering, and agriculture are the three next most popular goals.—*M. Lee* (Chicago).

5546. **Center, S. S.** *The significance of the reading clinic.* *Engl. J.*, 1938, 27, 380-388.—The nature of a clinic, its equipment, its personnel, and its clients are described. Individual cases and group progress are reported briefly to demonstrate the significant contribution made. The author predicts that all school systems will soon be equipped for such clinical service.—*D. Bailey* (Mt. Holyoke).

5547. **Child, R. C.** *Appreciation in the survey course.* *Engl. J.*, 1938, 27, 492-495.—Warning was given a junior college class that one question on the semester examination was to be: "Which item in this semester's reading did you enjoy most, and why? Which did you enjoy least, and why?" An additional task was re-arrangement of all items studied and read in order of preference. In addition to the motivating value there was some diagnostic value in the results.—*D. Bailey* (Mt. Holyoke).

5548. **Christy, E. W.** *Psychology and methods in the high school and college: industrial arts.* *Rev. educ. Res.*, 1938, 8, 47-50.—Literature of the period from January 1934 to July 1937 is reviewed. Research has been concerned chiefly with the formulation and clarification of objectives, comparative studies on method, efforts for enrichment, safety education, selection of textbooks and equipment, graduate study, and trends in the field. Several studies are cited in each of these areas.—*D. Bailey* (Mt. Holyoke).

5549. **Dickerson, R. E.** *Prepare them for marriage.* *Parents' Mag.*, 1937, No. 12, 24-25.—*R. R. Willoughby* (Brown).

5550. **Douglas, H. B., & Kinney, L. B.** *Psychology and methods in the high school and college: mathematics.* *Rev. educ. Res.*, 1938, 8, 51-57.—Literature of the period from January 1934 to July 1937 is reviewed. The object of the greatest number of studies in this field has been to discover prognostic or predictive instruments. These are grouped separately for algebra and geometry. A study of achievement in mathematics showed little gain in ability after grade VII in the processes of addition, subtraction, multiplication, and division. Sex differences, mathematics as a specialized ability, the relation of reading to algebra achievement, the use of workbooks, large-unit versus daily-unit assignments, reorganization experiments, and remedial drill have been subjects for one or more research projects.—*D. Bailey* (Mt. Holyoke).

5551. **Ehrhardt, K.** *Schulleistungs- und Schulführungsschwankungen. Ein körperlich und geistig-seelisches Entwicklungsbild der Schüler höherer Lehranstalten.* (School performance and behavior fluctuations. A physical and intellectual developmental picture of students in higher schools.) *Z.*

bayer. statist. Landesamts, 1937, 69, 82-116.—This is a comprehensive investigation of the bodily and intellectual development of 436 students during their 10th to 20th years, presenting graphically the fluctuations of such factors as grades, diligence, deportment, and participation in sport and other social activities. The psychophysiological changes of puberty appear to govern some of these fluctuations; others reflect changes in the school situation itself, such as change of teachers, of subject matter, of disciplinary orders, and the like.—*G. F. J. Lehner* (Vermont).

5552. **Everts, E. W.** *Psychology and methods in the high school and college: health and physical education.* *Rev. educ. Res.*, 1938, 8, 39-41.—Literature of the period from January 1934 to July 1937 is reviewed. 14 studies were included. Problems having to do with the organization of health instruction, with physical fitness, with motor ability and skills, and with character and personality development are the major ones considered. The research in this field is characterized by the author as fragmentary, with poor application of research techniques. The greatest gain has been made in administrative procedures and in measurement. Needed research is outlined.—*D. Bailey* (Mt. Holyoke).

5553. **Fogerty, E.** *Notes on some cases of word blindness.* *J. Speech Disorders*, 1938, 3, 113-116.—The author presents brief case histories of 5 cases of functional word blindness in children, and lists specific exercises which she has found helpful in correcting this defect. Her experience suggests that "the path to re-establishment of normal conditions lies along a vigorous course of motor training associated with visual and auditive impressions."—*C. V. Hudgins* (Oberlin).

5554. **Franklin, D. W.** *An experiment in training for business.* *Hum. Factor, Lond.*, 1937, 11, 181-186.—A study of graduates from the Solihull (secondary) school for a three-year period showed that the best group enter universities, the next engage in public services, the third enter banks and insurance houses, the fourth enter law and accountancy, while the fifth or lowest group get into industry and commerce. This is representative of vocational choices among high school graduates in England. A report is given of an experiment at Solihull where, with the co-operation of business firms, a better grade of boy was attracted to, trained for, and placed in business and industry.—*H. Moore* (Mt. Holyoke).

5555. **Frederick, R. W., Ragsdale, C. E., & Salisbury, R.** *Directing learning.* New York: Appleton-Century, 1938. Pp. xvi + 527. \$2.75.—The point of view taken in this book is that learning is essentially self-activity and therefore teaching becomes a directing function, "a process of energizing pupil activity and giving it desirable form." The best possible product of the classroom is held to be the ability to learn effectively throughout life. Fundamental principles involved in developing effective study methods of self-direction and problem-solving are stressed rather than specific devices or suggested

procedures, though many illustrations and applications give concreteness to the discussion. No attempt is made to adhere to any particular school of psychological thought. The first major division, "Processes of learning and study," deals with basic considerations concerning the initiation, control, direction, and inhibiting of learning and study activity. In Part II, "The school and the direction of study," various present modes of organizing instruction are analyzed for their strengths and weaknesses in developing individual learning power. Part III, "Directing study in the classroom," deals practically with techniques and procedures such as reading, making notes, outlining and summarizing, using the library, writing examinations, fixing skills, and problem-solving. A bibliography on study is appended, in addition to chapter references. Questions, problems and activities are given for each chapter.—*D. Bailey* (Mt. Holyoke).

5556. **George, H.** *Laienurteile über den Lebenswert der Mathematik.* (Lay judgments concerning the value of mathematics.) *Z. angew. Psychol.*, 1937, 53, 80-115.—By means of a questionnaire sent to 1154 lay persons, of whom 373 or 32.3% replied, it was sought to determine the value of mathematics, its application, its influence (if any) as a formal and disciplinary subject, etc. Results indicate only very little direct practical use, although two thirds believe it to have formal value.—*G. F. J. Lehner* (Vermont).

5557. **Hartmann, G. W.** *Social attitudes and information of American elementary school teachers.* *J. educ. Sociol.*, 1938, 11, 506-510.—The replies of 10,000 elementary school teachers "distributed at random in school systems in every state of the Union" to a questionnaire on their knowledge of and attitude toward contemporary civilization seemed to indicate that these elementary school teachers are less well informed and less "liberal" in their attitudes toward contemporary problems as compared with a previously published study of secondary school teachers.—*F. D. McTeer* (Wayne).

5558. **Jastak, J.** *School test patterns of clinic children.* *Delaware St. med. J.*, 1938, 10.—348 children of school age referred to the Delaware Mental Hygiene Clinic for various problems of adjustment were given a battery of intelligence and achievement tests. The results showed most of the children to be less successful in reading than in arithmetic. The discrepancy between reading and arithmetic was smaller in the more intelligent children. The discrepancy between actual achievement and latent ability, however, was greater the more intelligent the child.—*M. Keller* (Butler Hospital).

5559. **Jennings, J. R., & Stott, M. B.** *A fourth follow-up of vocationally advised cases.* *Hum. Factor, Lond.*, 1936, 10, 165-174.—This is a study of 352 of the 770 people who received vocational counsel at the National Institute of Industrial Psychology in 1930-31. Of these 100 were continuing suggested studies, 70 of whom found the field

suitable; 3 of these 70 were not making satisfactory progress due to a change in their interests; of the 30 who found the study plan unsuitable 18 were making an academic success. Of the 252 who had entered occupations 196 were successful, an increase of 6% over the last study; 194 found the work suitable and 57 reported that the work was apparently unsuited to them.—*H. Moore* (Mt. Holyoke).

5560. **Jones, V.** *Psychology and methods in the high school and college: character education.* *Rev. educ. Res.*, 1938, 8, 11-14.—Literature of the period from January 1934 to July 1937 is reviewed. Two main constructive trends in this field are pointed out and contributing research dealing with these is summarized. Research on motivation of conduct is one of these significant approaches, and experimentation in educational settings is the second. Studies of ethical behavior and books and articles dealing in a general way with plans and research are briefly mentioned. The controversy over the use of schools in the cause of social and economic doctrines is discussed briefly as a character-molding factor.—*D. Bailey* (Mt. Holyoke).

5561. **Kay, G. F., & Feder, D. D.** *Some effects of curriculum adjustment at the college level for students low in scholastic aptitude.* *Sch. & Soc.*, 1938, 47, 772-776.—The state university needs to adjust the program of the ambitious low-ability student so that his time will be profitably spent, rather than to exclude him. To this end a special committee at the University of Iowa advises the lowest quintile of freshmen in the selection of a full course, including descriptive (rather than abstract) sciences and history. Foreign languages and graphic and plastic arts are permitted only if the student has a special aptitude or interest. The experimental group so advised were markedly, and increasingly in the sophomore year, more successful than a paired control group from preceding years. The effect is especially marked in cases where there had been a break in school contacts for several years. Advisors vary in efficiency, but the value of the procedure has been clearly shown.—*M. Lee* (Chicago).

5562. **Keliher, A. V.** *Life and growth.* New York: Appleton-Century, 1938. Pp. 255. \$1.20.—This volume is a text on social relations, social values, life functions, and sex development for young people of high-school and junior-college age; it is a publication of the Commission on Human Relations of the Progressive Education Association.—*R. R. Wiloughby* (Brown).

5563. **Lahy, J. M.** *Psychology applied to educational and social problems in a French rural district.* *Occup. Psychol.*, 1938, 12, 116-133.—This is an account of guidance work carried on among 1350 children in Mitry-Mory. Teachers grouped the children in three major classes: (1) mentally deficient and retarded, with three sub-classes: intellectual, physical, social; (2) normal in intelligence but with constitutional disorders of character: unstable, emotional, morbid, warped, perverted; (3) gifted, in three groups: special abilities, gifted but

susceptible to fatigue, and precocious. 403 children were thus selected. Psychological tests showed that only 170 of these were abnormal, and only 58 were backward. All so-called abnormal children were given a series of mental and psychomotor tests as well as a psychiatric examination, on the basis of which backward children were reclassified as: mentally defective, temperamentally unstable, physically insufficient, and socially handicapped. Classes for each group were organized, and the recommendation was given that a psychological center be established in the community with a medical, a psychotechnical, a social, and a psycho-educational section. Sociological and economic factors are responsible for the average level of all school children being much below that of a representative urban group.—*H. Moore* (Mt. Holyoke).

5564. **Moore, J. E.** *Psychology and methods in the high school and college: art.* *Rev. educ. Res.*, 1938, 8, 7-10.—Literature of the period from January 1934 to July 1937 is reviewed. Surveys of art interests and preferences, the relation of art ability to intelligence, individual differences, transfer of training, clarification of vocabulary and terminology, and diagnostic resources are included.—*D. Bailey* (Mt. Holyoke).

5565. **Mursell, J. L., & Madison, T.** *Psychology and methods in the high school and college: music.* *Rev. educ. Res.*, 1938, 8, 58-59.—Literature of the period from January 1934 to July 1937 is reviewed. Experimental investigations in this field were found to be few. Several surveys and reports are cited which deal with community status, equipment and facilities, and current practices in music. Some testing programs for prognostic and comparative purposes and a few miscellaneous studies, such as one to discover the effect of creative work in music, comprise the list. A bibliography of more general articles are given.—*D. Bailey* (Mt. Holyoke).

5566. **Myers, C. S.** *The mental hygiene of mental work.* *Occup. Psychol.*, 1938, 12, 5-16.—Individual differences make general prescriptions useless. The harmonious development of the entire personality is of more value, as an aid to the processes of learning and thinking, than the "mere training of the intellect." Concentration and voluntary effort may be facilitated by the use of appropriate exercises, by frequent changes of work, by the avoidance of irregular, unexpected and interesting noises, and by maintaining a good physiological condition, frequent light meals, adequate physical exercise, and optimal temperature and ventilation conditions. Determining tendencies and unconscious conflicts are frequently causes of creative genius.—*H. Moore* (Mt. Holyoke).

5567. **Nichols, F. G.** *Psychology and methods in the high school and college: commercial subjects.* *Rev. educ. Res.*, 1938, 8, 15-18.—Literature of the period from January 1934 to July 1937 is reviewed. The author finds few research projects worthy of being included. Most of the article is devoted to a Carnegie Corporation study of typewriting, in

which a simplified keyboard was found superior, and to a study by Erickson and others on new methods of teaching vocational business courses. Improved instruction shortens the training period necessary for typing, shorthand, and bookkeeping, according to these findings. Few schools attempt to facilitate skill in operation of office machines or other non-bookkeeping or non-stenographic abilities.—*D. Bailey* (Mt. Holyoke).

5568. **Oakley, C. A.** *A first follow-up of Scottish vocationally advised cases.* *Hum. Factor, Lond.*, 1937, 11, 27-31.—53 of the earliest cases which were advised reported the results five years later. Of the 41 who were pursuing the recommended vocation 39 were successful and happy; of the 12 who selected a different vocation only 3 were successful and happy. The Scottish division advises 30 cases annually.—*H. Moore* (Mt. Holyoke).

5569. **Oeser, O. A.** *Vocational guidance in industry: some psychological reflections.* *Hum. Factor, Lond.*, 1937, 11, 258-263.—This is a discussion of "the complex psychological factors that enter into any consideration of a child's fitness for certain kinds of jobs": abilities; physical and temperamental fitness; and vocational expectations, preferences, interests, desires, and fantasies. To understand the last, "a fairly comprehensive knowledge of the psychology of the Unconscious is important."—*H. Moore* (Mt. Holyoke).

5570. **Phillips, W.** *The general influence of studies. Part II.* *Brit. J. educ. Psychol.*, 1938, 8, 115-128.—The small amounts of observable transfer effects are attributed to lack of suitable organization in subject-matter presentation, inadequate amounts of practice and failure of teachers to emphasize the generalized conclusions and methods that can be used in other subjects and fields, and a lack of balance in curricula between traditionally compulsory subjects, such as Latin and mathematics, and the wider variety of subjects knowledge of which is required by modern conditions. No cause for pessimism is found in the limits on the development of intelligence found in recent studies, but rather a challenge to make maximum use of the available ability. A secondary curriculum making use of the principles discussed is proposed.—*K. M. Cowdery* (Stanford).

5571. **Powers, S. R.** *Psychology and methods in the high school and college: science.* *Rev. educ. Res.*, 1938, 8, 60-66.—Literature of the period from January 1934 to July 1937 is reviewed. The studies which the author has selected because of their pertinence to learning processes are grouped under four headings: innovations in teaching methods, which includes comparative studies of different technique in instruction, attempts to develop powers of generalizing, remedial instruction devices, and accuracy of observation; scientific attitudes and interests (5 studies); transfer of training experiments; and curriculum studies. The author concludes that more refined research techniques are being used, that there is a trend toward use of broader criteria

in evaluating outcomes of science teaching, and that a closer relation is evident between educational theory and research investigations.—*D. Bailey* (Mt. Holyoke).

5572. **Remmers, H. H.** *Propaganda in the schools—do the effects last?* *Publ. Opin. Quart.*, 1938, 2, 197-211.—Three articles which could be read in 15 minutes were read by high school pupils a week apart. The investigator used the Thomas-Remmers scale to measure the attitudes of the pupils before and after each reading. There was a marked and consistent change in the direction intended by the social stimulus on some issues and not on others. A positive effect was found on soil conservation, capital punishment, labor unions, and social insurance. Divorce gave no such shift. An attempt to determine the permanent effect of the propaganda was made by giving the attitude scale two days later, two months later, and six months later. There seems to be an original effect, a regression toward the attitudes held before indoctrination, and a wavering of the attitude for many months.—*R. L. Schanck* (Kenyon).

5573. **Rodger, T. A.** *A follow-up of vocationally advised cases.* *Hum. Factor, Lond.*, 1937, 11, 16-26.—639 of 1310 young people who were given vocational counsel during 1927-1931 reported the results five years after the counsel was given. They were in two groups, students, who were pursuing a recommended field of study, and workers. The successes among the two groups were fifteen times as frequent as the failures when the Institute's recommendations had been followed and only twice as frequent when rejected. Change of interest, not doing enough work, and emotional disturbance are reported as unseen causes of failure. 79% of the workers were successful in the field they were advised to enter.—*H. Moore* (Mt. Holyoke).

5574. **Sandon, F.** *The comparative effect of school progress of many short and one long absence in a secondary school.* *Brit. J. educ. Psychol.*, 1938, 8, 172-177.—Academic marks in the term following recorded absences were examined for 406 boys in a mixed secondary school. Little if any relationship was found between later achievement and duration of absence in the previous term, but quality of work was definitely affected by the number of absences during the previous term.—*K. M. Cowdery* (Stanford).

5575. **Smith, A. H.** *A bibliography of Canadian education.* *Univ. Toronto, Dept. educ. Res. Bull.*, 1938, No. 10. Pp. 302. \$1.00.—This is an annotated bibliography of 2324 titles extending from the 19th century to 1937. Titles were selected on the basis of their authorship by Canadians or their treatment of Canadian education. A subject index is appended.—*D. Bailey* (Mt. Holyoke).

5576. **Smith, D.** *Psychology and methods in the high school and college: English language, reading and literature.* *Rev. educ. Res.*, 1938, 8, 25-33.—Literature of the period from January 1934 to July 1937 is reviewed. The material is selected from 1139

reports. The following headings represent the areas covered: high school composition; college composition and prediction of success; the teaching of grammar; English usage; vocabulary; courses of study; English in the integrated curriculum; measurement; the teaching of literature; extensive reading; reading interests; student reading of periodicals and newspapers; the school library; remedial reading; analysis of difficulty of reading material; reading rate; and the use of photographic measures and visual tests for deficiencies in reading. No attempt is made to formulate any summary or conclusions from the data reviewed.—*D. Bailey* (Mt. Holyoke).

5577. **Sorenson, H.** *Adult abilities.* Minneapolis: Univ. Minnesota Press, 1938. Pp. 190 + xiii. \$2.00.—The outgrowth of an earlier study, this investigation was intended to determine the abilities and achievements of adults who took collegiate courses offered through the general extension divisions of seven geographically separated state universities. From the results of general aptitude tests and examinations administered, and from interviews with extension directors and instructors, certain conclusions were developed. Extension students appeared to be socially, educationally, and economically selected. Their chief reason for enrolment was the hope of advancement in their work. They were approximately equal to regular university students in measured "intelligence" and reading. Within the group the women seemed to be more able than the men. Teaching problems related to extension courses are discussed. A final chapter reviews various studies of the relation of learning and "intelligence" to age, pointing toward the probability that differential decline in abilities may be attributable largely to use and disuse.—*D. G. Ryans* (William Woods College).

5578. **Stott, M. B.** *Vocational guidance and training for the girl.* *Hum. Factor, Lond.*, 1937, 11, 166-173.—With 17% of women in England remaining single and 25% carrying on occupations after age 35, there is as much need for and justification of vocational guidance for young women as for young men. The average school-leaving age is 16, the average marriage age is 25; this span of nine years should be cared for by adequate counseling and training.—*H. Moore* (Mt. Holyoke).

5579. **Strang, R.** *Practice materials for the improvement of reading in high school and college.* *J. consult. Psychol.*, 1938, 2, 89-91.—"The resources for diagnosis of reading ability of high school and college students, inadequate as they are, are superior to the resources of therapy or remedial work." Types of material prepared to give retarded readers practice in reading are classified as follows: (1) popular stories adapted and rewritten in simplified form, (2) original material written specifically for retarded readers, (3) practice books for instruction and drill in certain reading habits. A short bibliography of references with descriptive notes is included in each classification.—*P. S. de Q. Cabot* (Simmons).

5580. Street, R. F. Critical factors in educational placement. *J. consult. Psychol.*, 1938, 2, 71-73.—A report of the relationship of four factors, IQ, reading quotient, social quotient, and socio-economic status, in a program of educational placement affecting a school population of 900 children from the kindergarten through the eighth grade showed that "no grouping can give homogeneity in relation to all factors, and that whatever factor is used for placement, deviations in all other factors may occur and must be given due consideration." Almost certain success in placement results if measures of intelligence obtained from an individual examination, of reading ability, and of socio-economic status are considered.—P. S. de Q. Cabot (Simmons).

5581. Tharp, J. B., & McDonald, K. Psychology and methods in the high school and college: foreign languages. *Rev. educ. Res.*, 1938, 8, 35-38.—Literature of the period from January 1934 to July 1937 is reviewed. Studies dealing with individual instruction adapted to needs and interests, with the reading approach to interest, with the comparison of different teaching methods, with experimental use of radio in teaching, with prognosis, and with transfer of improvement of English are included. A recent nation-wide survey of foreign language projects now in process, to be published soon in *Modern Language Journal*, is described.—D. Bailey (Mt. Holyoke).

5582. Tibbitts, F. L. Occupational guidance for youth. Oklahoma City: Harlow, 1938. Pp. 303 (mimeographed). \$4.00.—This book includes 46 chapters, and the material is divided into parts as follows: first steps in choosing your occupation; occupations of primary production; occupations of conversion and repair; occupations of distribution; occupations of home extension; occupations of fine and recreational arts; clerical occupations. Numerous tables and figures appear throughout the text and references are listed at the ends of most of the chapters.—M. O. Wilson (Oklahoma).

5583. Torroja i Valls, R. La mesura del treball escolar i la classificació dels alumnes. (Measurement of school work and classification of pupils.) *Rev. Psicol. Pedag.*, 1937, 5, 259-288.—The author reports a series of tests which he has devised for classification and promotion of children in elementary and intermediate schools. They are used successfully in Barcelona.—M. E. Morse (Baltimore).

5584. White, J. G. Personal data blank. Stanford University, Calif.: Stanford Univ. Press, 1938. 25 copies, \$2.00.—This blank is designed to assist a counselor in becoming acquainted more quickly and accurately with a counsellee and his problems. Space for information on personal history (family, health, and finances), problems, interests and traits, education, and occupation is provided. Vocational interests are emphasized.—M. Keller (Brown).

5585. Wilson, H. E. Psychology and methods in the high school and college: social studies. *Rev. educ. Res.*, 1938, 8, 67-73.—Literature of the period from January 1934 to July 1937 is reviewed. The

measurement of outcomes connected with social science instruction, the development of social studies tests, the construction or reconstruction of the social studies curriculum, methods in teaching, materials for teaching the social studies, and the ability and training of social studies teachers are the main groupings. The author concludes that the research findings are not encouraging and that persons in the field need to be better fitted for significant and reliable research activity.—D. Bailey (Mt. Holyoke).

[See also abstracts 5109, 5165, 5166, 5214, 5404, 5415, 5422, 5436, 5445, 5451, 5505, 5532.]

MENTAL TESTS

5586. Bühler, C. The ball and field test as a help in the diagnosis of emotional difficulties. *Character & Pers.*, 1938, 6, 257-273.—The 165 children of this study were divided into the following groups: normal children with average intelligence, normal children with advanced intelligence, mentally slow normal children, mentally deficient children, and neurotic children. Unsuccessful solutions of the ball and field test were classified as confused, involved, or formalistic, and were contributed to in this manner: 78% by the neurotic, 20% by those who lacked understanding of the task, and only 2% by the completely normal and average children. The test, therefore, may be considered symptomatic and diagnostic of emotional problems in children. 12 figures and 9 tables are included.—M. O. Wilson (Oklahoma).

5587. Cattell, R. B. A guide to mental testing; for psychological clinics, schools and industrial psychologists. London: Univ. London Press, 1936. Pp. xvi + 312. 10/6.—R. R. Willoughby (Brown).

5588. Messer, W. J. A note on the increase with age of scores in some tests of manual dexterities. *Hum. Factor, Lond.*, 1936, 10, 228-230.—The bead-threading and wool-knotting tests, used in selecting dressmaker apprentices, showed steady improvement in raw scores up to age 15, and very little increase thereafter. The number of cases per half year ranged from 8 to 73.—H. Moore (Mt. Holyoke).

5589. O'Connor, J. Administration and norms for the finger dexterity test, worksample 16, and the tweezer dexterity test, worksample 18. *Tech. Rep. Hum. Engng. Lab.*, 1938, No. 16. Pp. 136.—Although both finger and tweezer dexterity tests involve the placing of pins in each of 100 holes, they measure distinct characteristics. Each test has been found valuable in selecting applicants for certain specific tasks. The report describes the administration of the tests and presents age and sex norms. Approximately 100 pages are devoted to charts and tables.—H. Schlosberg (Brown).

5590. O'Connor, J. An analysis of the second trial of the black cube, worksample 167. *Tech. Rep. Hum. Engng. Lab.*, 1938, No. 18. Pp. 100.—The black cube test involves the assembling of blocks into a cube. On the basis of data obtained

with it from 100-400 subjects, O'Connor concludes: "There is little difference between the first trial and the second trial of the black cube test with other structural tests." Practice and age factors are discussed. Further refining of the test is in progress. There are 230 figures and 9 tables.—*H. Schlosberg* (Brown).

[See also abstracts 5386, 5525.]

CHILDHOOD AND ADOLESCENCE

5591. Bayley, N., & Davis, F. C. Growth changes in bodily size and proportions during the first three years. *Biometrika*, 1935, 27, 26-87.—*E. R. Henry* (New York University).

5592. Braasch, G. H. Gemeinschaft und Entwicklung. Beitrag zur Psychologie des deutsche Jungen. (Fellowship and development. A contribution to the psychology of German youth.) Borna: Noske, 1938. Pp. 29. RM. 1.80.—*R. R. Willoughby* (Brown).

5593. Despert, J. L. Technical approaches used in the study and treatment of emotional problems in children. Part 6. Correlation of facts—evaluation of methods. *Psychiat. Quart.*, 1938, 12, 176-194.—The consistency of findings by means of different media, and in the face of a lack of conscious motives, points to the value of such methods as means of investigation. In reviewing the material brought out spontaneously by the children one gains the impression that the problem of aggressiveness and its sublimation may be the most important to solve; that from the point of view of tension release alone it is relatively indifferent which channel (suggested or not) is opened, since the child will utilize for this purpose any opportunity offered him; but that he also seeks specific expression, and thus for fundamental treatment it is preferable to provide him with methods which will give him an opportunity for this.—*C. R. Atwell* (Boston Psychopathic Hospital).

5594. Epstein, R., & Witmer, H. Some suggestions for Illinois' adoption procedure: a study of sixty adopted problem children. *Smith Coll. Stud. soc. Work*, 1938, 8, 369-388.—The authors state that "Adoption practice as it now exists in Illinois is largely a legal matter, and its social implications are not fully considered. Many adoptions are effected before the Department of Public Welfare has submitted its recommendations, and if made, they are sometimes not followed." The chief concern here is to suggest certain considerations which should be taken into account, whether an adoption petitioner is "of sufficient ability to bring up a child" and the adoption "is fit and proper and for the best interest of the child." For this purpose 60 cases were selected for study from the adoption children who were examined at the Illinois Institute for Juvenile Research during the two years 1933-35. In the records of those cases it was found that the children adopted under one year old seemed more successful than those adopted above one year old. Adoptions were made mostly by persons who con-

sidered themselves unable to have children of their own. The authors feel that there should be a careful study and consultation on the part of child-placing agencies before any adoption takes place. If the motives and desires of the parents wanting children are uncovered many unsuccessful adoptions may be avoided.—*K. S. Yum* (Chicago).

5595. Frank, A. A study in infant development. *Child Developm.*, 1938, 9, 9-26.—Photographs of infants 6 and 8 months old are presented to show the effects "of induced positions and of support applied by the experimenter to maintain them, upon the infant's overt somatic behavior during the period of acquiring stance and locomotion." It is the contention of the author that such assistance and support, as it is customarily used in tests of postural growth, produces behavior which is entirely inconsistent with the natural muscular organization of the infant.—*F. D. McTeer* (Wayne).

5596. Fries, M. E. The value of play for a child development study. *Understanding the Child*, 1938, 7, 15-18.—Observation of the content and the type of play gives valuable clues to understanding a child's physical, mental and emotional development. To comprehend the determinants of the behavior the data must be systematically gathered in such life situations as object relationship and response to deprivation and then correlated with other relevant factors.—*F. G. Allen* (Brown).

5597. Goldstein, H. The relation of order of birth to other birth factors. *Child Developm.*, 1938, 9, 127-140.—"The records of 285 multiparae were examined at the Sloane Maternity Hospital in New York City for the relationship of order of birth to incidence of antepartum complications, duration of pregnancy, incidence of labor complications, duration of labor, and birth weight." There is a tendency for the later-born to have (1) a greater birth weight, (2) shorter duration of labor, (3) a greater incidence of antepartum complications but a lesser incidence of labor complications, (4) a greater percentage of spontaneous deliveries, and (5) a greater percentage of normal births. "These differences, while favoring the later-born, are not statistically reliable in every comparison." Bibliography of 42 titles.—*F. D. McTeer* (Wayne).

5598. Hattwick, L. A., & Sanders, M. K. Age differences in behavior at the nursery school level. *Child Developm.*, 1938, 9, 27-47.—Ratings by teachers on behavior habits and personality traits of 555 nursery school children were analyzed with reference to age to determine what behavior patterns were characteristic of each half-year interval between 2 and 4½ years. Analysis indicates that behavior of the 2-year-old is characterized by lack of control, physical (*wets self, breaks toys*), vocal-motor (*slurs, lisps*), and emotional (*cries easily*). At 2½ years the child is "in the early stages of active experimentation both with materials and with other individuals"; he ignores requests, asks unnecessary help, gives in too easily, refuses to share, etc. The period between 3 and 4 years of age appears to "be one in which the

child is becoming integrated"; he has significantly fewer behavior problems than does the younger or older child. At 4 years of age new traits stand out; *relates fanciful stories and misrepresents facts*, indicating an experimentation with ideas in contrast with his earlier preoccupation with learning to talk; *looks for praise, bosses others, shows off*, indicating the increasing role of social influences.—*F. D. McTeer* (Wayne).

5599. *Helweg, H., Stürup, G., Simonsen, K., & Strømgren, E. Ambulante psykiatriske undersøgelser hos børn.* (Ambulant psychiatric investigations of children.) *Ugeskr. Laeg.*, 1938, 100, 478-480.—In the endeavor of Danish psychiatrists to reorient themselves on the basis of additional collected data concerning children who should be psychiatrically investigated and treated, the authors state that while one fourth of such children are suffering from intelligence defects, the other three fourths cannot properly be taken care of by existing clinics. It is therefore proposed that ambulant psychiatric observation clinics be established, and that such a clinic be established at the University of Copenhagen in the interest of further training in this highly needed branch of medicine.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5600. *Hogger, J. Die Kinderpsychologie Augustins.* (The child psychology of St. Augustine.) München: Kösel-Pustet, 1937; *Arb. Psychol. Inst. Univ. München*, 1937, 8: *Beitr. ErziehWiss.*, 1937, H. 4. Pp. 200.—A comprehensive account of early views on child development, with special reference to the thoughts of St. Augustine.—*G. F. J. Lehner* (Vermont).

5601. *Johnson, B. Development of thought.* *Child Developm.*, 1938, 9, 1-7.—"The comparative analysis of the conceptual thinking of children and adults in unfamiliar situations shows similarity in individual differences in selection of procedure. This procedure is determined in part by previous experiences in development of concepts and in application of principles to solution of problems. The studies of children give evidence of the early development of concepts and the ability to respond to the relative difference or similarities in situations presented." "In unfamiliar situations the adult often reverts to habitual forms of response which are repeated though previously found unsatisfactory. With repetition more logical modes of attack are made."—*F. D. McTeer* (Wayne).

5602. *Kielberg, S., Nørvig, J., & Olsen, A. Ambulante psykiatriske undersøgelser af børn.* (Ambulant psychiatric investigations of children.) *Ugeskr. Laeg.*, 1938, 100, 405-407.—A general contribution on the necessity for ambulant psychiatric investigation of children in Denmark.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

5603. *Lewis, M. M. The beginning and early functions of questions in a child's speech.* *Brit. J. educ. Psychol.*, 1938, 8, 150-171.—A series of obser-

vations of the first stages in the development of questions in the conversation of an only child reveals the following features: (1) the questions are a form of activity and a method of assuring social co-operation; (2) this co-operation is demanded by the child as a form of play and in an effort to satisfy his needs; (3) the development follows the steps: (a) demand for linguistic intercourse, (b) questions preliminary to action in the immediate situation, (c) questions related to an absent situation, and (d) questions independent of activity to elicit information; and (4) no sharp division occurs between questions as an activity and the use of questions to gain knowledge.—*K. M. Cowdery* (Stanford).

5604. *Low, H. R. How children learn to play at different levels.* *Understanding the Child*, 1938, 7, 11-14.—Play is an activity related to the whole life of the child, and is the basis of later interests and good social relationships. It is so closely related to physical, intellectual, social, and emotional development that adequate social and material provision should be made for it.—*F. G. Allen* (Brown).

5605. *MacCalman, D. R. The management of the difficult child.* *J. roy. Inst. publ. Hlth Hyg.*, 1937, 1, 93-97.—*R. R. Willoughby* (Brown).

5606. *Meredith, H. V., & Knott, V. B. Changes in body proportions during infancy and the pre-school years: III. The skelic index.* *Child Developm.*, 1938, 9, 49-62.—"The skelic index, defined as the percentage relation of length of lower extremities to stem length, is computed for approximately 4200 paired measurements taken on upwards of 1000 children between birth and six years of age." "The indices are grouped into nineteen distributions for each sex, and each distribution is analyzed for central tendency and variability." In addition, "research findings on proportionate relation between lower limb length and stem length during prenatal life are reviewed and supplementary material is presented on the trend of the skelic index during the childhood and adolescent years from 7 to 18." Bibliography.—*F. D. McTeer* (Wayne).

5607. *Meyer, E. La représentation des relations spatiales chez l'enfant.* (The imaging of spatial relations in the child.) *Cah. Pédag. exp.*, 1936, 8, Pp. 16.—100 children from 4½ to 12 years old were examined. A sketch of a landscape, with three mountains represented on it, was presented to each subject, who was instructed to place a puppet at a point from which a photograph of a certain perspective could be taken; or the doll might be placed by the examiner, and the subject asked to choose a picture corresponding to the obtained perspective. The results suggest an evolution of spatial imaging parallel to Piaget's plan of the elaboration of practical (sensori-motor) intelligence. At the low level at which the child does not perceive groupings of objects, he does not consider all the spatial relationships. In the sensori-motor stage in which the child situates objects in relation to his body and his prehensile ability, he knows that a relationship exists between point of view and the observed ob-

jects, but he neglects the inter-object relations. At a more advanced level, the child considers the spatial relations of the various objects, but keeps an egocentric point of view: he does not consider himself as an object. When the child, using the sensorimotor plan, knows how to make detours which involve imagings of spatial relations of objects and of his own bodily movements, he has achieved a correct imaging of perspective.—(Courtesy *Année psychol.*).

5608. Minday, B., Shepherd, M. L., Emerson, L., Hamil, B. L., Poole, M. W., Macy, I. G., & Raiford, T. E. Hemoglobin differences in healthy white and negro infants. *Amer. J. Dis. Child.*, 1938, 55, 776-783.—An average of 8.4 determinations was made on each of 335 white infants and an average of 8.2 determinations was made on each of 140 negro infants. The average values of hemoglobin for white infants were from 0.5 to 1 gram (per hundred cc. of blood) higher after the fourth month than those of negro infants during the entire first year of life. However, no significant racial differences were observed in the hemoglobin curves for the two groups during the initial drop and up to the end of the third month of life. Detailed study failed to establish any significant racial difference between the red blood cell values of the white infants and those of negro infants.—W. J. Brogden (Johns Hopkins).

5609. Oberlin, D. S. Children who draw. *Delaware St. med. J.*, 1938, 10.—One of the dominant factors which motivate a child to express himself mainly through a non-verbal medium seems to be a lack of ability in verbal expression.—M. Keller (Butler Hospital).

5610. Ponce, A. Ambición y angustia de los adolescentes. (Ambition and anxiety in adolescents.) Buenos Aires: 1936. Pp. 207.—This is a collection of lectures, delivered in 1932, concerning important problems of the adolescent. The author considers the sexual tendency, the inner life, the anxieties, the ambitions, the rebellions, the equivocal affective states, the logic, the social idealism, the friendship, and the love of the adolescent child.—(Courtesy *Année psychol.*).

5611. Poull, L. E. The effect of improvement in nutrition on the mental capacity of young children. *Child Developm.*, 1938, 9, 123-126.—The average change in IQ (Stanford-Binet or Kuhlmann-Binet) of children who were "malnourished at the time of the first test and well nourished at the time of the second test" is compared with that of children who were "well nourished at the time of the first test and still well nourished at the time of the second test, the diagnosis of good nutrition and malnutrition based on the physicians' statement in the hospital record." The two groups, 41 children in each, are equated as nearly as possible for chronological age, IQ, and interval between tests. The chronological age limit at the upper ends is 7 years 11 months. The findings are: (1) "an average rise of 10 points in IQ for the group who were definitely malnourished at the time of the first test and well nourished at the

time of the final test, in contrast to an average zero change in the group who were well nourished throughout the period of observation." (2) "A significant correlation ($-.56$) between age at time of the first test and IQ rise." "The number of cases is too small for reliable generalization, but the indication is that a period of 18 months to 2 years is required to bring about the average gain from nutritional care." Bibliography.—F. D. McTeer (Wayne).

5612. Rahm, J. Die Bildbetrachtung im Zusammenhang einer Eignungsuntersuchung. (Picture analysis in relation to aptitude testing.) *Z. angew. Psychol.*, 1937, 53, 334-366.—A print of Dürer's "Ritter, Tod und Teufel" was shown to 376 children 13-16 years old, who were instructed to describe in writing what the picture suggested to them. The results, which were analyzed with reference to Schulz's 5 types (based on those of Jaensch), indicate that personality differences can be detected by this means, upon the basis of which individuals can be grouped.—G. F. J. Lehner (Vermont).

5613. Rank, B. T. The therapeutic value of play. *Understanding the Child*, 1938, 7, 19-23.—After a brief review of various other theories of play, the author considers in detail the psychoanalytic theory of play, quoting Freud's interpretation of the play of an 18-months-old boy. The difficulties of using this therapeutic method are pointed out and constructive suggestions given.—F. G. Allen (Brown).

5614. Richards, T. W., Newbery, H., & Fallgatter, R. Studies in fetal behavior: II. Activity of the human fetus in utero and its relation to other prenatal conditions, particularly the mother's basal metabolic rate. *Child Developm.*, 1938, 9, 69-78.—Records of fetal activity during the last 20 weeks of pregnancy were obtained from 17 mothers who made continuous reports (by means of push buttons attached to a polygraph) of their own activity and of observed fetal movements during weekly or bi-weekly periods of five to six hours in the laboratory. "When fetal activity level during the last two months was correlated with the mother's basal metabolic rate sampled during the same period a coefficient of $.19 \pm .17$ was obtained. However, the correlation, not with absolute basal metabolic rate but with the increase in metabolic rate over measurements taken 52 to 197 days earlier, was $.60 \pm .11$." "Although differences are not statistically significant, it is possible that there is a peak of activity during the eighth and ninth lunar months, with a dropping off at the tenth month." "There was no evidence of diurnal or other rhythm in this reported activity."—F. D. McTeer (Wayne).

5615. Richards, T. W., & Newbery, H. Studies in fetal behavior: III. Can performance on test items at six months postnatally be predicted on the basis of fetal activity? *Child Developm.*, 1938, 9, 79-86.—"Several statistical approaches to the material obtained" in records of fetal activity (see preceding article) "agreed very closely in suggesting that for this group there was a positive relationship between fetal activity as reported by the mother and perform-

ance on the Gesell items at six months" (based on tests of 12 infants). "Rank difference coefficients in all cases were four times their probable errors. No spurious age factor was found to account for these relationships."—*F. D. McTeer* (Wayne).

5616. *Sakellariou, G. T. E exelxis tou threskeutikou biou tou ellenos ephebou.* (A study of the religious life of Greek youth.) *Ereunai psuchol. Ergasteriou, Thessalonike*, 1938, No. 2. Pp. 55.—2701 Greek boys and girls 12-20 years of age were personally examined on a number of characteristics of religious life. Results of the investigation showed a clear decline, both in boys and girls, in religious life with increasing age. Greek youth is more religious than the youth of Protestant countries, and girls are more religious than boys; the most influential environmental factors of religious life are, in order of their importance, the mother, the father, school, the church, brothers and sisters, and relatives.—*E. D. Hunt* (Brown).

5617. *Sakellariou, G. T. To pseudos kata ten ephebiken elikian.* (A study of lies told by Greek adolescents.) *Ereunai psuchol. Ergasteriou, Thessalonike*, 1938, No. 3. Pp. 33.—2000 boys and girls 12-20 years of age were examined on 12 points concerning lying. Among the results were the following: with increasing age, both boys and girls tell fewer lies, except girls of 18-20, who tell more lies than before; adolescents become less sincere toward strangers, relatives and teachers than they were in childhood, but more sincere toward friends; the causes of lying are mainly fear in school and home, egoism, and social habit; boys exhibit greater repentance for lying than do girls.—*E. D. Hunt* (Brown).

5618. *Sakellariou, G. T. Ai prolepseis kai deisidaimoniai kata ten ephebiken elikian.* (A study of superstitions in Greek adolescence.) *Ereunai psuchol. Ergasteriou, Thessalonike*, 1938, No. 4. Pp. 18.—100 common superstitions were personally presented to 660 boys and girls ranging in age from 12 to 20 years. The most common superstitions were: the evil eye, foretelling future happenings by the twitching of the eye, itching of the palm of the hand, etc. Greek boys are freed from superstitions as they grow older to a greater degree than are Greek girls.—*E. D. Hunt* (Brown).

5619. *Schumacher, W. Lyrische Gestaltungs- und Erlebnisfähigkeit bei Kindern und Jugendlichen.* (The capacity of children and adolescents for lyric expression and enjoyment.) *Z. pädag. Psychol.*, 1938, 39, 85-96.—Schumacher's material consisted of poems on "Mother" and "Spring" written to order by boys and girls between 9 and 22 years. Before the 13th year the poems were of the egocentric, materialistic and inventory type. This was followed by the "we and you" poems of adolescence, among boys more a heroic and common social consciousness, among girls maternal feeling and idealization of their personal experience. The objective, critical, and didactic poem appears to be characteristic of adolescent boys. Not before 14

years do children show clearly recognizable emotional insight and hence the capacity to produce and enjoy lyric poetry.—*M. E. Morse* (Baltimore).

5620. *Staff, Child Study Association of America. Parents' questions.* New York: Harper, 1938. \$2.00.—A book made up of questions about difficulties in child care actually asked by parents. Each chapter gives a discussion of a general problem and then a series of definite questions with a detailed discussion of each. Chapter headings are as follows: the question and the questioner; habits and habit training; discipline and authority; healthy attitudes toward health; heredity and training; the child's emotions; sex in childhood; character and spiritual growth; school and home; the child and the outside world; parents as people.—*M. Keller* (Butler Hospital).

5621. *Stirnemann, F. Le goût et l'odorat du nouveau-né.* (Taste and smell in the new-born.) *Rev. franç. Pédiat.*, 1936, 12, 453-485.—This is a detailed description of observations made on 100 new-born infants (including 7 prematures). From birth gustatory reactions to sugar are observed in all; in most infants there are reactions corresponding to the four primary taste sensations, as well as to many odors. These reactions are quite variable, and include sucking, attempts to approach or retreat, gestures, and cries. Sucking is manifest not only to sugar, but also to acid (citric), salt, and quinine. A certain discriminative action is at times observed, but every taste object can be either accepted or rejected; this indicates that internal influences are stronger than the nature of the stimulus. The fact that the infant cries when sugar-soaked wadding is removed indicates to the author the existence of psychic manifestations, rather than simple reflexes. An infant without olfactory nerves made reactions to certain essences; this was probably a trigeminal response. A hydrocephalic lacking cerebral hemispheres exhibited quite active responses (though somewhat different from those of the normal) to olfactory and gustatory stimuli. "It seems that in these infants inferior centers can replace higher centers which are lacking because of a disorder of development: there must exist a principle higher than the nervous system."—(Courtesy *Année psychol.*).

5622. *Wallis, W. D. Anatomic lag.* *Child Developm.*, 1938, 9, 87-121.—"Anatomic lag, the lag of one dimension on another against which it is plotted, is exhibited by most dimensions in man and appears to be a characteristic of the animal kingdom." Tables are presented showing relative regression coefficients based on more than 90 different anatomical measurements taken on humans of more than 50 different racial groups and 26 age groups from 1 month to 22 years, together with similar data on 8 different animal species.—*F. D. McTeer* (Wayne).

[See also abstracts 5179, 5249, 5264, 5273, 5299, 5311, 5322, 5326, 5339, 5493, 5549.]

